SPECIALIST REPORT:
VISUAL RESOURCES
BORDERTOWN TO CALIFORNIA
120 KV TRANSMISSION LINE PROJECT

SIERRA COUNTY, CALIFORNIA
AND
WASHOE COUNTY, NEVADA

Prepared for:

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LIST OF ACRONYMS AND ABBREVIATIONS

BLM	Bureau of Land Management
CFR	Code of Federal Regulations
CIAA	Cumulative Impacts Analysis Area
COM	Construction, Operation, and Maintenance (Plan)
DEIS	Draft Environmental Impact Statement
EIS	Environmental Impact Statement
FLPMA	Federal Land Policy and Management Act
FSH	Forest Service Handbook
KOP	Key Observation Point
kV	Kilovolt
MVUM	Motor Vehicle Use Map
NEPA	National Environmental Policy Act of 1969
NFS	National Forest System
NOI	Notice of Intent
OHV	Off-highway Vehicle
PPOD	Preliminary Plan of Development
PRMP	Proposed Resource Management Plan and Final EIS
ROD	Record of Decision
ROW	Right-of-Way
SF	Standard Form
SMS	Scenery Management System
SPCC	Spill Prevention, Control, and Countermeasures (Plan)
SWPPP	Storm Water Pollution Prevention Plan
USFS	U.S. Forest Service
VMS	Visual Management System
VQO	Visual Quality Objective
VRM	Visual Resources Management

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1.0 INTRODUCTION

NV Energy, Inc. (NV Energy) filed a Standard Form (SF) 299 Application for Transportation and Utility System and Facilities on Federal Lands with the U.S. Department of Agriculture, Forest Service (USFS), Carson Ranger District, and the U.S. Department of the Interior, U.S. Bureau of Land Management (BLM), Eagle Lake Field Office. The application was submitted seeking authorization to construct, operate, and maintain a 120 kilovolt (kV) transmission line, which is referred to as the Bordertown to California 120 kV Transmission Line Project (proposed project).

1.1 PURPOSE OF SPECIALIST REPORT

The purpose of this specialist report is to characterize existing visual resources within the potentially affected area and to analyze and disclose potential effects on visual resources that would occur under implementation of the action alternatives and the No Action Alternative, as described in **Section 1.3** of this specialist report. This report also describes specific design features that would be implemented under the action alternatives in order to reduce or avoid potential impacts on visual resources. The data and effects analysis in this specialist report will be used to support an Environmental Impact Statement (EIS) that is being prepared by the USFS pursuant to Section 102 of the National Environmental Policy Act of 1969 (NEPA). The USFS, Carson Ranger District is the lead agency. The BLM, Eagle Lake Field Office is a cooperating agency in the preparation of the EIS, and several state and local agencies are also participating as cooperating agencies.

This specialist report focuses on the visual resources on National Forest System (NFS) land within the potentially affected area. There are also BLM-administered public lands and private land that may be impacted by the proposed project and thus the resources on these lands are also discussed in this specialist report.

1.2 PROPOSED PROJECT

Sections of the proposed transmission line that would cross NFS land or public land administered by the BLM would be constructed, and then operated and maintained within a right-of-way (ROW). The ROW would be a strip of land that measures 45 feet in width on either side of the proposed transmission line alignment, making the total width 90 feet. Because the ROW boundary would be equidistance from either side of the transmission line alignment, the alignment is effectively the longitudinal centerline of the ROW. Sections of the proposed

transmission line that would cross private land would be constructed, operated, and maintained within easements. NV Energy would provide financial compensation for easements to private owners as determined by a qualified third-party appraiser, through negotiations, or through the courts. Easements would also be 90 feet wide, measured 45 feet in width on either side of the alignment.

The proposed project consists of:

- the construction, operation and maintenance of a 120 kV overhead transmission line between the existing Bordertown and California substations in Sierra County, California;
- modifications and improvements to both substations for accommodating the addition of the proposed transmission line, including expansion of the existing boundary of the Bordertown Substation facility; and,
- widening of existing roads and construction of new temporary access roads necessary for construction and maintenance of the proposed transmission line.

The proposed transmission line would consist of bundled aluminum conductor steel-reinforced cable supported on single-circuit pole structures. A combination of single-pole structures, two-pole H-frame structures, and three-pole dead end/angle structures would be used for the proposed transmission line. Single-pole structures would be used less frequently because they would generally be used only where confined space prevents the use of the wider two-pole H-frame or three-pole dead end/angle structures. Single pole structures would be approximately 60 to 90 feet tall, depending on terrain and obstructions. The two-pole H-frame structures and the three-pole dead-end/angle structures would be approximately 50 to 90 feet tall, depending on terrain or obstructions. The span distance between the poles would typically average 800 feet but could range from 200 feet to 2,000 feet depending on terrain or obstructions. Weathered steel, characterized by a stable, rust-like finish that closely resembles the color of wood poles, would be used for all poles.

1.2.1 Project Construction

Construction of the proposed transmission line would consist of the establishment of staging areas, pole sites, and transmission wire setup sites; the construction of access roads, including widening existing roads; and, the installation of the pole structures and conductor and shield wires. The exact location of these project elements would be determined prior to construction. See the Preliminary Plan of Development (PPOD) (JBR Environmental Consultants, Inc., 2009) for a detailed description of power pole assembly, wire stringing, and construction equipment.

Up to four staging areas may be needed to store construction materials, equipment, tools, fuel, service trucks, spare parts, and vehicles. The staging areas would house portable, self-contained

toilets and possibly portable offices or serve as equipment maintenance areas. Staging areas would measure approximately 500 feet in length by 500 feet in width. No staging areas would be located on NFS land. Any hazardous materials such as fuel, lubricants, and solvents, would be handled and stored in accordance with applicable regulations, including Title 40 Code of Federal Regulations (CFR) Part 262 (40 CFR 262). Handling, storage, and clean-up of hazardous materials at staging areas would be described in a Spill Prevention, Control and Countermeasures (SPCC) Plan, which would be included as part of the Construction, Operation, and Maintenance (COM) Plan. Staging areas would include secondary containment to capture and contain any potential spills or leaks.

Poles would be set in the ground, typically without a foundation or footing, and then backfilled with native soils removed during excavation of the hole for the pole structure and/or imported backfill material (i.e., soils). Guy wires and soil anchors would be installed on three-pole dead-end/angle structures to offset changes in wire tension due to the change in the direction of the transmission line at angle poles. Concrete foundations would be used with self-supporting angle pole structures where guy wires and soil anchors could not be installed to support three-pole dead-end/angle poles, such as when there is roadway interference. Pole sites, which are the area at each proposed power pole structure that would be required for the construction equipment, excavation of the hole for the pole, and installation of the pole structure, would not exceed approximately 0.5 acre in size for single-pole and two-pole H-frame structures. Pole sites would typically not exceed 1 acre in size for three-pole dead-end/angle structures and self-supporting angle pole structures on concrete foundations. Pole sites in steeper terrain may be graded level for safe operation of equipment. Level equipment pads would not be re-graded, but reseeded so that the pad would be available for future maintenance of the pole. Materials, including the transmission poles, insulators, guy wire anchors, and all other associated hardware, would be delivered from staging areas to each of the pole sites.

After pole structures have been assembled and installed, construction crews would perform wire stringing and installation of conductors and shield wires. Wire stringing and installation activities would be performed from transmission wire setup sites. Transmission wire setup sites would measure approximately 600 feet in radius. It is anticipated that wire installation and stringing would require between 6 and 16 transmission wire setup sites. The number of sites is a function of wire-reel span lengths and engineering requirements for conductor sagging.

Existing roads would be used for construction and maintenance access as much as possible. In order to accommodate construction equipment, roads would be widened up to 30 feet, including cut and fill slopes. Roads that would be widened include designated NFS roads and two-track roads (i.e., roads shown on the Carson District Motor Vehicle Use Map [MVUM] [USFS, 2011]). Certain roads that are wide enough to not require widening may need blading or

installation of erosion control measures. Road improvements would comply with: 1) *The Forest Service National Supplements to the FP-03* (USFS, 2010); 2) the Forest Service Handbooks (FSH) for road construction (FSH 7709.56 and FSH 7709.57); and, 3) the Forest Plan. Several designated NFS roads have seasonal use restrictions from April 1 to November 18 that would be followed during construction. All designated NFS roads widened for construction or maintenance access would be restored to the original roadbed width and the areas that were disturbed from widening would be re-contoured and seeded.

New access roads (i.e., centerline travel road and spur roads) would be constructed to pole sites, transmission wire setup sites, and staging areas when there are no existing roads available. Access roads would be 30 feet wide and located within a 300- to 600-foot-wide corridor (variable-width corridor). The variable-width corridor would be centered on the transmission line and would measure 300 feet wide where slopes are 10 percent or less, and 600 feet wide where slopes are greater than 10 percent. Roads would be constructed primarily by mowing or masticating vegetation in a manner that leaves root systems intact to encourage re-growth and minimize soil erosion. Whole-tree removal would be necessary where new access roads cross forested areas. Rocks or other obstructions would be bladed. If rocks cannot be removed with heavy equipment, blasting may be used. While new access roads wider than 30 feet would not be expected, occasional widening beyond 30 feet may be necessary in areas where extensive blading and side cuts are required. Erosion and sediment controls would be installed as identified in the project Storm Water Pollution Prevention Plan (SWPPP), which would be included as part of the COM Plan.

Road construction across perennial streams would be avoided. Where improvements are needed to cross ephemeral and intermittent streams, the side slopes of drainages would be reduced to a slope that would allow safe vehicle travel, and the slopes and drainage bottom would be rock armored. Once construction is complete, all drainage modifications would be re-graded to restore pre-construction contours and seeded based on existing site conditions.

After construction, new access roads would be re-graded (i.e., re-contoured) and stabilized by seeding and installing erosion control features such as water bars. Where deemed appropriate by the USFS, roads near sensitive resources may not be re-graded in order to avoid inadvertent disturbance to resources. Barriers would be installed on all restored access roads located on NFS land to prevent unauthorized vehicle use. If future road access is needed for maintenance of the transmission line and depending upon the level of proposed new disturbance or the change in environmental conditions, a review of the sufficiency of the existing NEPA analysis would be made.

The approximate ground disturbance for each construction activity or area is provided in **Table 1**. Most ground disturbance would be temporary and would be restored following construction. Other disturbance would be permanent, such as the pole-structure footings at each pole site.

Table 1 Temporary Ground Disturbance Required for Project Construction

Construction Activity or Area	Approximate Construction Dimensions/Disturbance	Estimated Number
Poles structures: Single pole Two-pole H-frame Three-pole dead-end/angle	 85-foot radius (+/- 0.5 acre) 85-foot radius (+/- 0.5 acre) 120-foot radius (+/- 1.0 acre)	Span distance between pole structures would typically average 800, feet but could range from 200 to 2,000 feet depending on terrain or obstructions
Transmission wire setup sites	Approximately 600 feet long (+/- 26 acres)	Between 6 and 16 sites, but would vary by alternative
Staging areas	500 feet long and wide (+/- 5.7 acres)	As many as 4 construction staging areas would be necessary
Improvements to existing roads and NFS motorized trails used for access	30-foot-wide disturbance (consisting of a traveled way measuring up to 14 feet wide plus any curve widening, turnouts, and side cut and fill slope areas)	Varies by alternative (see **Sections 1.3.3.1** through **1.3.3.4**)
New temporary access roads (i.e., spur roads and centerline travel road)	30-foot-wide disturbance (consisting of a traveled way measuring up to 14 feet wide plus any curve widening, turnouts, and side cut and fill slope areas)	Varies by alternative (see **Sections 1.3.3.1** through **1.3.3.4**)
Tree removal from transmission line clearance area	Clearance area includes area directly beneath transmission line and areas within 21 feet to either side of each transmission line cable. Additional trees within ROW or outside of ROW that may potentially fall onto the cables or pole structures would be removed. Construction of log landings (+/- 0.5 acre) would create additional disturbance	Varies by alternative (see Specialist Report prepared for Vegetation Resources)

Source: (JBR, 2009)

Prior to construction on NFS land and BLM-administered public land, noxious weeds would be inventoried and treated within the ROW and areas within 100 feet of project ground disturbance. Treatment methods would include manual and mechanical methods and the use of the following herbicides (brand/shelf name is parentheses): Aminopyralid (Milestone); Clopyralid (Transline); Chlorsulfuron (Telar); Glyphosate (Roundup and Rodeo); Imazapic (Plateau, which is not labeled for use in California); and Triclopyr (Garlon). A five-gallon backpack sprayer would be the primary method of herbicide application, but large infestations may require a truck-mounted sprayer.

During construction, vegetation would be removed as needed at pole sites, staging areas, transmission wire setup sites, and access roads. Removal of vegetation would generally consist of mowing or masticating shrub and grass vegetation in a manner that leaves root systems intact to encourage growth and minimize soil erosion. During construction in forested areas, whole trees would be removed using heavy equipment where terrain and slope stability permits and skidded to log landings for disposal. In areas with excessive slopes and highly erodible soils, trees would be felled by crews with chainsaws and removed with helicopters. Slash would be removed or chipped and broadcast onto an adjacent area to prevent fuel loading. Prior to cutting trees on private land in California, a *Public Agency, Public and Private Utility Right of Way Exemption* would be obtained from the California Department of Forestry and Fire Protection. The exemption would waive the requirement to prepare and file a Timber Harvesting Plan.

The project must confirm with National safety and reliability standards and rules and California and Nevada regulations. The most restrictive of these standards, rules, and regulations require that obstructions be no closer than 21 feet to overhead 120 kV transmission lines. A transmission line can be expected to sag during heavy electrical loading and warm weather to within 22 feet of minimum line clearance of the ground at mid-span. To achieve the required clearance, all trees beneath the proposed transmission line and 21 feet of either side of the conductor cables would initially be removed during construction. Beyond 21 feet, any tree with the potential to fall onto the conductors or pole structures would also be removed, regardless of whether the tree is located within the proposed ROW/easement. Removal of trees from within 21 feet of the conductors, as well as trees with potential to onto the conductors or pole structures would routinely continue as needed through maintenance of the project. Tree removal during maintenance of the proposed transmission line would be performed using chainsaws, masticator, or skidding equipment. Maintenance access would be by foot-travel, pickup truck, bucket truck, or off-highway vehicle (OHV) from the nearest designated NFS or maintenance road.

Construction of the proposed project is estimated to require 8 to 12 months to complete, depending on weather or other unforeseeable events. Near sensitive receptors (i.e., occupied residences), noise-generating activities (e.g., blasting) would be limited to Monday through Friday from 7:00 a.m. to 7:00 p.m. Otherwise, work may occur 12 hours per day any day of the week. The size of the construction workforce would vary depending upon the active construction phase, but it is anticipated that it would generally include 50 to 100 people. Typical equipment and vehicles necessary for construction of the proposed project would range from standard-sized pickup trucks, to large cranes and bulldozers. Depending on site specific conditions encountered during construction, a helicopter may also be required. All construction equipment, surplus construction materials, and construction debris and wastes would be removed upon completion of the proposed construction activities and any maintenance activities.

1.2.2 Project Restoration

The terms “reclamation” and “restoration” are used interchangeably throughout this report, as are the terms “reclaim” and “restore”. A detailed plan for restoration of construction-related ground disturbance would be included as part of the COM Plan. The restoration plan would include re-vegetation success criteria based on USFS vegetation matrices and reference sites. Restoration success on NFS land would be monitored until it is deemed successful by the USFS.

1.2.3 Operation and Maintenance

The transmission line would be operated from the NV Energy Electrical Control Center in Reno, Nevada. Personnel at the Electrical Control Center would monitor voltage and power flow along the transmission line in accordance with standard operating procedures.

NV Energy would inspect the line annually to determine if maintenance is needed. Annual inspections would be from helicopter or from the ground by walking to pole structures from existing roads. An inspection that involves climbing pole structures is anticipated once every 10 years. Access to the transmission line would be from existing roads using pickup trucks, an all-terrain OHV or by walking to the pole structure. The ROW would be patrolled after unexplained outages or significant natural incidents (such as fires, earthquakes, floods, torrential rains, avalanches, or extreme electrical storms) to observe facility conditions and the surrounding environment and to begin repairing any damages. Trees that could interfere with the safe operation of the transmission line would be removed as needed (see **Section 1.2.1**).

1.2.4 Design Features Common to All Alternative

Project design features are developed to reduce or avoid environmental effects resulting from construction, operation, and maintenance of the proposed project. Preliminary project design features came from NV Energy's Preliminary Plan of Development (PPOD) (JBR, 2009) submitted with their SF299 application, from the interdisciplinary team, and other plans and regulations. Design features that are specifically associated with visual resources are listed below. The entire list of design features may be found in Chapter 2 of the pending Draft EIS (DEIS) for this project.

Visual Resources

VI 1. Non-specular conductors will be installed to reduce visual impacts.

Recreation/Roads/Transportation

RT 3. All new access roads (i.e., spur roads and centerline travel roads) specifically constructed for this project, including those determined to be necessary for maintenance of the transmission line, will have a physical closure installed to

prevent motorized access immediately following the completion of construction and restoration. The types of closure and design specification used will be approved by the USFS prior to installation.

1.3 PROPOSED ACTION AND ALTERNATIVES

The Stateline Alternative was presented as the Proposed Action in the Notice of Intent (NOI) to Prepare an EIS in the Federal Register and to the public during scoping meetings. This alternative is no longer feasible and is now an alternative that was eliminated from detailed study for the reasons discussed in Chapter 2 of the pending DEIS.

With the elimination of the Stateline Alternative, the alternatives selected for analysis in the DEIS and in this specialist report include:

- No Action Alternative
- Mitchell Alternative
- Peavine Alternative
- Poeville Alternative
- Peavine/Poeville Alternative

Each of these alternatives is described below.

1.3.1 No Action Alternative

Under the No Action Alternative, the USFS would not issue a Special Use Permit (SUP) for a transmission line ROW across NFS land, and the BLM would not issue an amended ROW Grant for a transmission line or substation expansion on BLM-administered public land. Thus, the construction, operation, and maintenance of the proposed transmission line across NFS land and BLM-administered public land, as well as private land would not occur. The existing 120 kV system would continue to rely on the #141 and #142 transmission lines for transmitting electric load to the West Reno/Verdi area in the foreseeable future. The No Action Alternative does not provide the redundancy needed in the system and therefore would not meet the purpose and need for the project.

1.3.2 Action Alternatives

The four action alternatives analyzed within this specialist report consist of the Mitchell, Peavine, Poeville, and Peavine/Poeville Alternatives. Under implementation of any of the action alternatives, the USFS would issue a SUP for a transmission line ROW, and the BLM would issue an amended ROW Grant. For temporary roads and construction access located outside of the transmission line ROW, the USFS would issue a temporary SUP. NV Energy would purchase easements from private landowners for construction and operation of the line across private

property. The ROW and easements for the proposed transmission line would be 90 feet wide for all action alternatives. The total acres of ROW and easements would vary among each of the action alternatives. **Table 2** provides a summary of the total miles of proposed transmission line and total acres of ROW/easement area that would occur on NFS land, BLM-administered public land, and private land for each action alternative.

Table 2 Summary of Action Alternatives

Action Alternative	Length of Alignment Alternative (Miles)				Area of ROW/Easement Required (Acres)			
	NFS Land	BLM-Administered Public Lands	Private Land	Total (All Land)	NFS Land	BLM-Administered Public Lands*	Private Land	Total (All Land)
Mitchell Alternative	8.4	0.4	2.9	**11.7**	91.6	8.1	31.6	**131.3**
Peavine Alternative	7.0	0.4	2.9	**10.3**	76.4	8.1	31.6	**116.1**
Poeville Alternative	3.8	0.4	13.8	**18.0**	44.7	8.1	147.3	**200.1**
Peavine/ Poeville Alternative	4.3	0.4	7.1	**11.8**	46.9	8.1	78.5	**133.5**

*Includes proposed expansion area associated with the Bordertown Substation.

Implementation of any of the action alternatives would result in the construction, operation, and maintenance of the proposed project as described in **Section 1.2**. The same construction methods and procedures and design features would be used. The location of construction staging areas and wire set-up sites are placed specific to the unique conditions and configuration of a particular alignment. Construction staging areas would not be located on NFS land under any action alternative, but transmission wire setup sites may be located on NFS land. The presence and condition of existing roads available for construction access is also unique and specific to the action alternatives. Consequently, the total length of existing roads that would require improvements to use for construction access would vary among the action alternatives. The total length of new temporary access roads required for construction of the project would also vary among the action alternatives.

1.3.3.1 Mitchell Alternative

The Mitchell Alternative would be approximately 11.7 miles long. The first approximately 5.0 miles would be identical to the first approximately 5.0 miles of the Peavine Alternative and generally parallel with the California and Nevada State line, staying approximately 0.6 to 0.9 mile east of the state line. The last approximately 0.8 mile of the alignment would also be identical to the Peavine Alternative. The last approximately 0.4 mile of transmission line into the California Substation would utilize single pole structures with a distribution line under-build to

accommodate the new transmission line and existing distribution line on the same poles. Approximately 4.6 miles of the Mitchell Alternative would be located adjacent to an existing power line corridor (**Figure 1**).

Approximately 11.1 miles of roads would be widened for construction access. **Table 3** presents the miles of road required to be widening and the surface disturbance associated with the widening.

Table 3 Road Widening Required for the Mitchell Alternative

Road/Route Type	Widening Required (Miles)	Surface Disturbance (Acres)[1]
Designated NFS Roads on NFS Land	5.6	14.4
Non-Designated Routes on NFS Land	1.1	2.7
Existing Roads Across Private Land	4.4	11.2
Total (Roads/Routes on All Land):	11.1	28.3

[1] Does not include existing road disturbance, which is assumed to be 9 feet wide.

The location of temporary new access roads would be determined prior to construction, but would be located within a 300- to 600-foot-wide variable-width corridor. Approximately 7.1 miles of new temporary centerline travel roads would be needed for construction of the Mitchell Alternative, resulting in approximately 25.8 acres of surface disturbance.

Design Features Specific to the Mitchell Alternative

Visual Resources

VI 2. The number of new poles will be minimized by increasing the pole span length on NFS land where the area is designated as Retention for Visual Quality Objectives as terrain allows.

1.3.3.2 Peavine Alternative

The Peavine Alternative would be approximately 10.3 miles long (**Figure 1**). The first approximately 5.0 miles and the last approximately 0.8 mile of the Peavine Alternative would be identical to the Mitchell Alternative. The Peavine Alternative generally parallels the California State line, staying on the Nevada side by approximately 0.6 to 0.9 mile. The last approximately 0.4 mile of the transmission line would be constructed within an existing utility corridor on single pole structures as part of an under-build with an existing distribution line. Approximately 2.8 miles of the Peavine Alternative would be located adjacent to an existing power line corridor.

Approximately 20.8 miles of existing roads would be widened for construction access. **Table 4** presents the miles of road required to be widening and the surface disturbance associated with the widening.

Table 4 Road Widening Required for the Peavine Alternative

Road/Route Type	Widening Required (Miles)	Surface Disturbance (Acres)[1]
Designated NFS Roads on NFS Land	10.0	25.5
Non-Designated Routes on NFS Land	1.4	3.5
Existing Roads Across Private Land	9.5	24.3
Total (Roads/Routes on All Land):	20.8	53.3

[1] Does not include existing road disturbance, which is assumed to be 9 feet wide.

Approximately 7.5 miles of new temporary centerline travel roads would be needed for construction of the Peavine Alternative, resulting in approximately 27.3 acres of surface disturbance.

Design Features Specific to the Peavine Alternative

Visual Resources

VI 2. The number of new poles will be minimized by increasing the pole span length on NFS land where the area is designated as Retention for Visual Quality Objectives as terrain allows.

1.3.3.3 Poeville Alternative

The Poeville Alternative would be approximately 18.0 miles long (**Figure 1**). Beginning at the Bordertown Substation, this alternative would parallel the Alturas 345 kV transmission line for approximately 6.7 miles and then follow the existing distribution power line toward the top of Peavine Peak. Construction of this section would consist of single pole structures with an under-build of the distribution line. East of Verdi, the Poeville Alternative would replace the existing, but currently inactive 60 kV #632 distribution line in its exact location, parallel with the existing #114 and #106 lines through Verdi to the California Substation. The existing #632 line H-frame pole structures would be replaced with new H-frame pole structures. Approximately 12.6 miles of the Poeville Alternative would be located adjacent to an existing power line corridor.

Approximately 24.2 miles of existing roads would be widened for construction access. **Table 5** presents the miles of road required to be widening and the surface disturbance associated with the widening.

Table 5 Road Widening Required for the Poeville Alternative

Road/Route Type	Widening Required (Miles)	Surface Disturbance (Acres)[1]
Designated NFS Roads on NFS Land	1.8	4.5
Non-Designated Routes on NFS Land	0.9	2.4

Road/Route Type	Widening Required (Miles)	Surface Disturbance (Acres)[1]
Existing Roads Across Private Land	21.5	55.1
Total (Roads/Routes on All Land):	24.2	62.0

[1] Does not include existing road disturbance, which is assumed to be 9 feet wide.

Approximately 5.4 miles of new temporary centerline travel roads would be needed for construction of the Poeville Alternative, resulting in approximately 19.6 acres of surface disturbance.

1.3.3.4 Peavine/Poeville Alternative

The Peavine/Poeville Alternative would be approximately 11.9 miles long (**Figure 1**). The first approximately 6.4 miles of the Peavine/Poeville Alternative would be the same as the first 6.4 miles of the Peavine Alternative. The last approximately 3.8 miles would be the same as the last 3.8 miles of the Poeville Alternative. A total of approximately 4.1 miles of the Peavine/Poeville Alternative would be located next to an existing power line corridor.

Approximately 26.1 miles of existing roads would be widened for construction access. **Table 6** presents the miles of road required to be widening and the surface disturbance associated with the widening.

Table 6 Road Widening Required for the Peavine/Poeville Alternative

Road/Route Type	Widening Required (Miles)	Surface Disturbance (Acres)[1]
Designated NFS Roads on NFS Land	8.9	22.6
Non-Designated Routes on NFS Land	0.0	0.0
Existing Roads Across Private Land	17.2	43.7
Total (Roads/Routes on All Land):	26.1	66.3

[1] Does not include existing road disturbance, which is assumed to be 9 feet wide.

Approximately 7.8 miles of new temporary centerline travel roads would be needed for construction of the Peavine/Poeville Alternative, resulting in approximately 28.4 acres of surface disturbance.

Design Features Specific to the Peavine/Poeville Alternative

Visual Resources

VI 2. The number of new poles will be minimized by increasing the pole span length on NFS land where the area is designated as Retention for Visual Quality Objectives as terrain allows.

1.4 VISUAL RESOURCES ISSUE STATEMENT

As required per the NEPA regulations found at Title 40, Code of Federal Regulations (CFR), Section 1501.7 (40 CFR 1501.7), scoping was performed to define issues and to develop a range of alternatives to address these issues for analysis in the EIS. The significant issues pertaining to visual resources that were identified during scoping were compiled into the resource issue statement below.

> *Presence of a transmission line may impact visual resources and the existing scenic quality throughout the project area.*
>
> *Presence of a transmission line may impact views from Interstate 80, U.S. Highway 395, Long Valley, Poeville, Verdi (California and Nevada), NFS land, and private property. The USFS must comply with visual quality objectives. Short-term impacts may include a reduction in scenic integrity from ground surface disturbances. Long-term impacts may include a reduction in scenic integrity from power lines, single pole, three pole, and H-frame structures depending on terrain, and maintenance access roads along the ROW.*

2.0 AFFECTED ENVIRONMENT

2.1 AREA OF ANALYSIS

The project area, as referred to in this Specialist Report, includes the existing Bordertown and California substations and the proposed ROW and easements for the transmission line for each action alternative.

The area of analysis, or study area, for visual resources includes the area within 0.5 mile of either side of the proposed alignment centerline for each action alternative. This area was selected as the study area because the characteristic landscape in which the proposed project may be visible would generally not extend farther than 0.5 mile to either side of the project area when viewed from travel routes, hiking trails and/or trailheads, and population centers and community facilities that are located nearby. The study area boundary for each action alternative is shown on **Figure 2**.

2.2 DATA AND INFORMATION SOURCES

The project area and the study area for each action alternative consist of private land, NFS land, and BLM-administered public lands. The major sources of data and information used to characterize and describe the existing condition and management direction of the visual resources include the:

- *Toiyabe National Forest Land and Resource Management Plan* (Forest Plan) (USFS 1986);
- Humboldt-Toiyabe National Forest Geographic Information Systems Corporate Data;
- *Landscape Aesthetics: A Handbook for Scenery Management (Agricultural Handbook 701)* (USFS 1995);
- *National Forest Landscape Management, Volume 2: Agriculture Handbook 462* (USFS 1974);
- *Proposed Resource Management Plan and Final Environmental Impact Statement: Eagle Lake Field Office* (BLM 2007);
- *BLM Handbook H-8410-1, Visual Resources Inventory* (BLM 1986a);
- *BLM Handbook H-8431-1, Visual Resource Contrast Rating* (BLM 1986b);
- National Agriculture Imagery Program aerial photography taken during the 2010 growing season (Department of Agriculture, Farm Service Agency, Aerial Photography Field Office 2011);
- 2011 satellite imagery provided by Google Earth (Google Inc. 2012);
- Informal observations and ground-level photographs from site visits between May 2012 and October 2012; and
- Photographs provided with comments submitted during the public scoping process.

Section 5.0 of this Specialist Report provides a full list of information sources and publications that were used to prepare this report.

2.3 FEDERAL RESOURCE MANAGEMENT SYSTEMS

2.3.1 United States Forest Service

The Scenery Management System (SMS) is the current framework that the USFS uses for the inventory and analysis of the aesthetic values of NFS land (USFS 1995). The SMS evolved from and replaced the Visual Management System (VMS). The VMS was established in 1974, and is described in *National Forest Landscape Management, Volume 2: Agriculture Handbook 462* (USFS 1974). The USFS was directed to convert from the VMS to the SMS in 1995.

The Forest Plan (USFS 1986) was prepared prior to 1995, and therefore the management direction and guidance for visual resources provided in the Forest Plan is based on the VMS. To provide for consistency and compatibility with the Forest Plan management goals and direction, the discussion and analysis of visual resources in this Specialist Report is based on the VMS. The VMS processes and terminology described in this section of the Specialist Report were derived from the *National Forest Landscape Management, Volume 2: Agriculture Handbook 462* (USFS 1974).

Under the VMS, the naturally established landscape being viewed (i.e., existing landscape) is referred to as the "characteristic landscape". The characteristic landscape visually represents the basic vegetative patterns, landforms, rock formations, and water forms which are in view to an observer. Distance zones are divisions of a characteristic landscape based on the distance from which the landscape is being observed. Distance zones are used to describe the part of a characteristic landscape that is being inventoried or evaluated. There are three possible distance zones under the VMS:

- Foreground distance zone;
- Middle-ground distance zone; and
- Background distance zone.

According to the *National Forest Landscape Management, Volume 2: Agriculture Handbook 462* (USFS 1974), the foreground distance zone is defined by the distance at which details of landscape are perceptible. The foreground distance zone is generally limited to the areas within 0.25 to 0.5 mile of the observer, but is dependent on site-specific conditions. The middle-ground distance zone is the area extending from the foreground zone to a distance of approximately three to five miles from the observer. The background distance zone is the area extending from the middle-ground zone to infinity. It is typically the most distant part of a landscape.

Visual resources are inventoried by identifying and classifying the scenic quality of the characteristic landscape, and the aesthetic concern for that quality. Inherent scenic quality is the

measure of natural scenic beauty of a landscape based on various attributes, including vegetation cover, landform, water features, and rock formations. Sensitivity levels are defined in the VMS as the measure of people's concern for the scenic quality of NFS land (USFS 1974). Sensitivity levels are determined for areas of NFS land viewed by those persons: 1) traveling through NFS land on developed roads and trails; 2) using areas or facilities such as campgrounds and visitor centers; or, 3) recreating at lakes, streams, and other water bodies (USFS 1974).

The scenic quality classifications and the sensitivity levels that a characteristic landscape contains determine the visual quality objective(s) (VQO) that are assigned to that characteristic landscape. The VQOs are designed to provide measureable standards or targets for which the visual resource of the landscape should be managed for, and can be considered visual resource management goals. The VQOs describe the magnitude of alteration that is acceptable within a characteristic landscape.

There are five possible VQOs that a can be assigned to a landscape: Preservation, Retention, Partial Retention, Modification, and Maximum Modification. The definition of each of the VQOs, including a description of the magnitude of alteration acceptable under each is provided in **Table 7**.

Table 7 Description of VQOs

VQO Designation	Management Goals and Objectives*
Preservation	Management activities and actions, except for very low visual-impact recreation facilities, are prohibited. Only ecological changes are acceptable.
Retention	Management activities and actions should not be visually evident. Activities and actions may only repeat form, line, color, and texture which occur frequently in the characteristic landscape; changes in their qualities of size, amount, intensity, direction, and so forth, should not be evident.
Partial Retention	Management activities and actions should remain visually subordinate to the characteristic landscape. Activities and actions may repeat form, line, color, or texture common to the characteristic landscape, but changes in their qualities of size, amount, intensity, direction, and so forth, should remain visually subordinate to the characteristic landscape. Activities and actions may also introduce form, line, color, or texture which occur infrequently or not at all in the characteristic landscape, but should remain subordinate to the visual strength of the characteristic landscape.
Modification	Management activities and actions may visually dominate the characteristic landscape; however, activities and actions of vegetative and landform alterations must borrow from naturally established form, line, color, or texture such that its visual characteristics are of those naturally occurring within the surrounding area. Additional parts of these activities and actions, such as structures, roads, slash, root wads, and so forth, must remain visually subordinate to the proposed composition. Activities and actions which are predominately the introduction of facilities such as buildings, signs, and roads, should borrow naturally established form, line, color and texture such that its visual characteristics are compatible with the natural surroundings.

VQO Designation	Management Goals and Objectives*
Maximum Modification	Management activities and actions of vegetative and landform alterations may dominate the characteristic landscape; however, when viewed in the background distance zone, the visual characteristics must be of those naturally occurring within the surrounding area. When viewed in the foreground or middle-ground distance zones, they may not appear to borrow completely from naturally established form, line, color, or texture. Alterations may also be out of scale or contain details unlike the natural occurrences seen in foreground or middle-ground distance zones. Introduction of additional parts to these activities and actions, such as structures, roads, slash, and root wads, must remain visually subordinate to the proposed composition when viewed in background distance zone.

*Source: National Forest Landscape Management, Volume 2: Agriculture Handbook 462 (USFS 1974)

2.3.2 Bureau of Land Management

The BLM uses a visual resources management (VRM) system to manage visual resources on the public lands that it administers. The primary objective of the VRM system is to maintain the existing visual quality of BLM-administered public lands and to protect unique and fragile visual resources. The VRM system uses four classes, Class I through Class IV, to describe the different degrees of modification allowed to the basic elements of the landscape (i.e., line, form, color, and texture) (BLM 1986a). The VRM Classes and their objectives are described in **Table 8**.

Table 8 VRM Classes and Objectives

VRM Class	Objectives*
I	The objective of this class is to preserve the existing character of the landscape. This class provides for natural ecological changes; however, it does not preclude very limited management activity. The level of change to the characteristic landscape should be very low and should not attract attention.
II	The objective of this class is to retain the existing character of the landscape. The level of change to the characteristic landscape should be low. Management activities may be seen but should not attract the attention of the casual observer. Any changes must repeat the basic elements of form, line, color, and texture found in the predominant natural features of the characteristic landscape.
III	The objective of this class is to partially retain the existing character of the landscape. The level of change to the characteristic landscape should be moderate. Management activities may attract attention but should not dominate the view of the casual observer. Changes should repeat the basic elements found in the predominant natural features of the characteristic landscape.
IV	The objective of this class is to provide for management activities that require major modification of the existing character of the landscape. The level of change to the characteristic landscape can be high. These management activities may dominate the view and be the major focus of viewer attention. However, every attempt should be made to minimize the impact of these activities through careful location, minimal disturbance, and repeating the basic elements of the landscape.

*Source: BLM Manual H-8410-1 Visual Resource Inventory (BLM 1986a).

2.4 REGULATORY FRAMEWORK

2.4.1 Humboldt-Toiyabe National Forest

The NFS land within the study area for each action alternative is part of the larger Humboldt-Toiyabe National Forest and are managed by the USFS, Carson Ranger District in accordance with all applicable federal laws and regulations. Management is also in accordance with the Forest Plan (USFS 1986).

In addition to providing management direction for the entire Toiyabe Forest (i.e., forest-wide management), the Forest Plan also provides direction for smaller management areas within the Toiyabe Forest.

2.4.1.1 Forest-Wide Management

The Forest Plan (USFS 1986) defines forest management goals as concise statements describing the desired condition of the National Forest that is to be achieved sometime in the future. These goals are applicable to the entire Toiyabe National Forest. The following forest management goal is listed specifically for visual resources:

- "the Forest landscape will be managed with a sensitivity for visual quality."

The Forest Plan states that the aforementioned goal is intended to achieve the following desired condition:

- "the Forest's landscape will have been managed to achieve the following visual quality VQOs:
  - **Preservation** – where only ecological changes have occurred (396,600 acres)
  - **Retention –** management practices are not evident to the casual observer (438,000 acres)
  - **Partial Retention –** management practices are visually subordinate (1,022,400 acres)
  - **Modification –** management practices may have dominated the landscape but activities should appear as natural occurrences in the fore- and middle-ground (7,086,700 acres)
  - **Maximum Modification –** management practices may have dominated the landscape but activities should appear as natural occurrences in the background (228,000 acres)."

The management requirements necessary for achieving forest-wide goals and objectives are referred to interchangeably as "standards" and "guidelines" in the Forest Plan (USFS 1986). The standards listed in the Forest Plan for visual resources are provided in **Table 9**. The table also provides the standards listed for several other resources that are related to visual resources and applicable to the proposed project.

Table 9 Forest-Wide Standards

Standard	Resource	Forest Plan Page
Protect the scenic quality of the Forest by achieving the designated visual quality objectives, unless modified by a site-specific environmental assessment.	Recreation	IV-14

Standard	Resource	Forest Plan Page
Where feasible, locate all range improvements away from travel corridors, especially trails, popular fisheries, and other water courses. When not feasible to separate the uses, incorporate design and landscape management principles to mitigate visual impacts in accordance with the Visual Landscape Handbook.	Range Management	IV-26
Incorporate landscape management principles, such as prescribed burning, into vegetative type conversions in accordance with the National Forest Landscape Management Handbook. Give special emphasis to retaining the natural visual integrity along travel corridors, especially roads and trails, and in areas of concentrated dispersed use.	Range Management	IV-26
An environmental analysis will be required prior to adding new facilities to existing corridors. The integrity of visual quality for the corridor will be maintained to the highest standard to minimize adverse resource and environmental impacts. Any new utility corridor not identified in the Forest Plan will be handled through the NEPA process.	Special Uses	IV-62
Utility lines generally will be buried if necessary to meet visual quality objectives. Exceptions to underground utility lines will be allowed where technological, economic, or resource protection requirements indicate that such lines should be overhead.	Special Uses	IV-64

Most of the other standards and guidelines listed in the Forest Plan provide direction that is more specific to the management of developed recreation sites and trails.

2.4.1.2 Management-Area Direction

The Forest Plan (USFS 1986) divides the Toiyabe National Forest into management areas and provides specific direction for each area. Most of the NFS land within the study area is located within the Dog Valley Management Area, Management Area #1 (USFS 1986). The following direction is listed for visual resources within the Dog Valley Management Area:

- Vegetative management prescriptions will consider visual quality, wildlife, and site productivity and economics as important factors.

2.4.2 Public Lands Administered by the BLM

2.4.2.1 Eagle Lake Field Office Proposed Resource Management Plan

Public lands administered by the BLM are managed for multiple uses that include recreation, timber production, livestock grazing, transportation network, utility corridors, and wildlife habitat. BLM-administered public lands within the study area are managed by the BLM Eagle Lake Field Office in accordance with the *Eagle Lake Field Office Proposed Resource Management Plan and Final EIS* (PRMP) (BLM 2007) and the *Record of Decision* (ROD) (BLM 2008). The following management actions ROD for visual resources:

- Manage all wilderness study areas as VRM Class I, unless released from designation by Congress, whereby the VRM designation would be converted to a VRM class based on the management prescriptions assigned below (BLM 2008).

- Assign VRM Class designations to all BLM-administered lands, and manage lands according to these class requirements, to protect scenic quality.

Visual Resources Goals and Objectives

The following visual resources goals and objectives are found on page 2-129 of the PRMP (BLM 2007):

- Manage BLM lands so that actions conducted, authorized, or regulated by BLM meet the visual resource objectives established by this PRMP.
- Designate BLM VRM classes for all lands under the jurisdiction of the Eagle Lake Field Office. Manage these lands according to their respective VRM class objectives.

Management Direction

The following management action is provided for visual resources on page 2-129 of the PRMP (BLM 2007):

- The existing character of the visual landscape will be protected under the following VRM classes: VRM Class I (preservation), Class II (retention of the existing landscape character), and Class III (partial retention of the existing landscape character).
- Lands throughout the planning area will be managed to meet VRM objectives according to their designated VRM class.

2.5 EXISTING CONDITIONS

2.5.1 Mitchell Alternative

Visual Character

To facilitate the inventory of landscape features and describe the existing visual character, the Mitchell Alternative study area was divided into four sub-areas: Bordertown sub-area, Central sub-area, Southern sub-area, and Verdi sub-area.

The Bordertown sub-area corresponds with the portion of the study area containing the existing Bordertown Substation and the first approximately 2.0 miles of the Mitchell Alternative from the substation. The Bordertown sub-area consists mostly of undeveloped shrubland that is dominated by xeric shrub species common to western Nevada and the east slope of the Sierra Nevada. There are a wide variety of species that occur within the area: sagebrush (*Artemisia* sp.), rubber rabbitbrush (*Ericameria nauseosa*), and antelope bitterbrush (*Purshia tridentata*) are among the most commonly occurring species. Individual or small groups of Jeffrey pine (*Pinus jeffreyi*) occur at isolated locations within the Bordertown sub-area, as do several small stands of aspen (*Populus tremuloides*). However, forest cover is generally absent within this sub-area.

Existing vegetation cover within the Bordertown sub-area is bisected by numerous unpaved roads, including Long Valley Road. Shrubland vegetation has been converted to agriculture

fields at isolated locations. There are two residences located within this sub-area. There is a small water reservoir located next to the southernmost residence. Other development within the Bordertown sub-area includes the existing Alturas 345 kV transmission line, an overhead distribution power line, the existing Bordertown Substation, and a small sawmill/lumber yard. There is also an existing railroad track that crosses this sub-area.

The Central sub-area corresponds with the portion of the study area containing the next approximately 7.1 miles of the Mitchell Alternative. Most of the Central sub-area consists of undeveloped NFS land characterized by conifer forest and open shrubland vegetation. Coniferous forest cover within this sub-area is dominated by intermediate- to late intermediate-aged Jeffrey pine. Understory species composition and density varies, but the most commonly occurring species include Antelope bitterbrush and manzanita (*Arctostaphylos* sp.). Shrubland vegetation is dominated by the same species that dominate shrubland vegetation within the Bordertown sub-area. Past wildfires (post-1980) have affected much of the vegetation cover in this sub-area (**Figure 3**). There are numerous unpaved roads and trails that have also resulted in the removal of vegetation cover. Most travel on existing roads within this sub-area is for recreational purposes and access.

The Southern sub-area corresponds with the next approximately 2.4-mile section of the Mitchell Alternative. This section of the proposed transmission line alignment is roughly parallel with and adjacent to the existing #102 overhead transmission line. In addition to the existing transmission line, the Southern sub-area also contains an existing buried gas pipeline and an unpaved section of Dog Valley Road (**Figure 4**). Henness Pass/Dog Valley Road is a primary access route for visitors to NFS land in the surrounding area. Because development within this sub-area has been limited to these utilities and the road, most of the Southern sub-area is undeveloped. Undeveloped areas were burned during past wildfires and the resulting vegetation cover consists mostly of open shrubland. The charred remains of some conifer trees are visible in open shrubland vegetation. Additionally, there are occasional trees and small stands of forest cover that survived the wildfire within this sub-area. Past wildfires in study area and surrounding region are shown on **Figure 3**.

The Verdi sub-area corresponds with the portion of the study area containing the existing California Substation and the last approximately 0.2-mile section of the Mitchell Alternative before the substation. Existing development is relatively prevalent within the Verdi sub-area. Development consists largely of structures and paved roads associated with the residential community of Verdi. There are more than 30 residences located within this sub-area. Many of the residences also include one or more smaller accessory structures. Henness Pass/Dog Valley Road also occurs within the Verdi sub-area, but this section of the road is paved and used by residents of Verdi as well as visitors to NFS land. Other development within this sub-area

includes the existing California Substation, the existing #102 120 kV transmission line, and numerous overhead distribution power lines and telephone lines. One distribution line is parallel and adjacent to Henness Pass/Dog Valley Road and other overhead distribution lines and telephone lines cross the road. Conifer forest characterizes vegetation cover in most areas where development has not occurred.

Federal Visual Resource Management Areas

The Mitchell Alternative would cross NFS land that has been assigned VQOs and BLM-administered public lands that have been assigned a VRM Class. As shown on **Figure 5-A**, the VQOs that have been assigned to the NFS land within the study area include: Retention, Partial Retention, and Maximum Modification. There is not any NFS land within the study area for the Mitchell Alternative that has been assigned the Modification or Preservation VQO. However, there is NFS land that was transferred from the BLM to the USFS under the Nevada Enhancement Act in 1988 that have not been assigned any VQO. All BLM-administered public lands within the study area are managed as VRM Class III (**Figure 5-A**).

The acres of each VQO and BLM VRM Class III that would be contained with the proposed ROW area for the Mitchell Alternative are summarized in **Table 10**. The table also lists the acres of each VQO and BLM VRM Class III that would be contained with the ROW area for the other action alternatives.

Table 10 Federal Visual Resource Management Areas by Alternative

Alternative	USFS Visual Quality Objective within ROW Area (acres*)					BLM VRM Class (acres*)
	Retention	Partial Retention	Modification	Maximum Modification	Unassigned	Class III**
Mitchell Alternative	5.1	7.5	0.0	76.8	2.2	4.4
Peavine Alternative	5.1	5.9	24.3	35.3	5.8	4.4
Poeville Alternative	0.0	4.7	2.9	0.9	36.2	4.4
Peavine/Poeville Alternative	5.1	0.0	13.0	19.3	9.5	4.4

* Acres are approximate and rounded to the nearest tenth of an acre.

** Proposed improvements to Bordertown Substation would also be located on BLM-administered public lands that are designated as VRM Class III.

Key Observation Points

As mentioned in **Section 2.3.1**, each VQO describes the magnitude of acceptable alteration to the characteristic landscape (i.e., existing landscape). The magnitude of alteration is measured in terms of visual contrast with the surrounding characteristic landscape. The measurement is taken from locations referred to as Key Observation Points (KOPs). Typically, KOPs are selected

along well-used roadways and trails, recreation sites, and near communities, as these are areas where the greatest number of people would see a project for the longest period of time. Based on the location of these features, combined with the design of the proposed project, existing conditions within the study area, and the VQOs assigned to the area, the KOPs listed in **Table 11** were selected for the Mitchell Alternative.

Table 11 Key Observation Points – Mitchell Alternative

KOP Number	KOP Name
KOP 1	California Substation – South
KOP 2	California Substation – West
KOP 3	Henness Pass/Dog Valley Road
KOP 4	Forest Boundary – West
KOP 5	Forest Boundary
KOP 7	Forest Route 41192 – North

Figure 5-A shows the location of the KOPs in relation to the Mitchell Alternative. A narrative of each KOP describing the physical location of the KOP, the angle of view, and the characteristic landscape of the KOP is provided below. Representative photographs of the characteristic landscape from each KOP are provided in **Appendix A**, and were used to prepare the KOP narratives.

KOP 1 (California Substation – South)

KOP 1 is located on the north shoulder of Henness Pass/Dog Valley Road, approximately 975 feet north of the existing California Substation. The angle of view at KOP 1 is south toward the California Substation and an existing overhead distribution line between Henness Pass/Dog Valley Road and the substation (**Figure 5-B**).

The topography in the foreground distance zone is nearly flat to gently sloping, and oriented south towards Sunrise Creek. Because the angle of view from KOP 1 and the topography both slope towards the south, landforms have relatively simple horizontal to very slight diagonal lines. The color and texture of the landforms are generally indistinguishable because most are covered with vegetation.

Vegetation in the area of the foreground distance zone closest to KOP 1 consists of low sparse grasses and short shrubs that appear spiked or globular in form. The lines associated with the vegetation cover are irregular to indistinct. The grasses and most shrubs in the foreground distance zone are characterized by light brown, light green, and pale tan colors. Some shrubs are closer to true green in color and a few grasses in the immediate foreground are bright green. The texture of the grass and shrub vegetation is sparse, uneven, and random.

Vegetation in the more dominant and outlying foreground distance zone consists of conifer forest dominated by Jeffrey pine. Dense evergreen foliage creates a solid, horizontal band-shaped form above the surface of the ground. Taller trees rising above the horizontal band-shaped form of foliage have a conical or triangular-shaped form. The forest vegetation is much taller than the grass and shrub vegetation, and the trunks of individual trees create vertical lines. The vertical lines are very subtle closer to the ground surface where forest cover is most dense. The lines are stronger for taller trees because they are viewed against the pale blue or gray backdrop of the sky. The color of the forest vegetation is dark green, very dark brown, and very dark gray. Forest vegetation is characterized by a coarse dense texture from the contrast between evergreen foliage and shadows between the foliage.

Structures in the foreground distance zone consist of power poles, conductor wires, and guy wires associated with an overhead power line and telephone line. The power poles are bold and linear in form, and relatively narrow. The power poles create strong, vertical lines that are simple and relatively parallel with the lines of tree trunks seen behind the poles. The conductor wires create curvilinear lines that become weaker moving away from KOP 1. Conductor wires roughly perpendicular to the angle of view create strong horizontal lines. The lines created by guy wires are diagonal and vary from weak to strong. Power poles are brown to light brown in color and wires are generally gray to dark gray. Plastic sheaths placed around the section of guy wires closest to the ground surface are very pale yellow in color. The texture of the structures in the foreground distance zone is smooth to indistinguishable.

Views of the middle-ground distance zone are obscured by evergreen foliage in the foreground distance zone. Thus, the landscape features that may occur in the middle-ground distance zone are not visible from KOP 1. The background distance zone is characterized by high mountain peaks and ridges. Topography is steep to moderately steep and slopes east-northeast. The crest of the high peaks and ridges create a strong continuous line against the backdrop of the sky. The colors of the landforms in the background distance zone are dull, low-chroma shades of gray and the texture is generally indistinguishable. The colors of the vegetation in the background distance zone are dull, low-chroma shades of gray and green. The form, line, and texture of vegetation in the background distance zone are generally indistinguishable, and there are no visible structures.

KOP 2 (California Substation – West)

KOP 2 shares the same location as KOP 1, as shown on **Figure 5-B**. However, the angle of view at KOP 2 is west and roughly aligned with the section of Henness Pass/Dog Valley Road immediately west of KOP 2.

The topography in the foreground distance zone is nearly flat to gently sloping and slopes south towards Sunrise Creek. Henness Pass/Dog Valley Road and the access road for the California

Substation are characterized by simple block-shaped forms. Line elements created by the landforms in the foreground distance zone are generally indistinguishable, but a strong curvilinear line is created by the edge of pavement on the north side of Henness Pass/Dog Valley Road. The colors and texture of the landforms in the foreground distance zone are generally indistinguishable because most of the area is vegetated. Existing roads in the foreground distance zone are gray in color, and the texture is smooth to very finely stippled.

Vegetation in the foreground distance zone closest to KOP 2 consists of low sparse grasses and short shrubs that appear spiked or globular in form. The grass and shrub vegetation cover has irregular to indistinct lines. The grasses and most shrubs in the foreground distance zone are characterized by light brown, light green, and pale tan colors. Some shrubs are closer to true green in color, and some grasses in the immediate foreground are bright green. The texture of the grass and shrub vegetation is sparse, uneven and random.

Vegetation in the more distant foreground nearer the middle-ground distance zone consists of coniferous forest dominated by Jeffrey pine. Forest vegetation is characterized by a horizontal strip- or band-shaped form. The tops of the evergreen trees in the forest vegetation create a jagged silhouette-line against the backdrop of the landforms and vegetation of the background distance zone. The trunks of individual trees also create soft vertical lines that are subtle and weak. The colors of the forest vegetation are dark green, very dark brown, and very dark gray. Forest vegetation is characterized by a coarse dense texture caused by the contrast between evergreen foliage and dark shadows between the foliage.

Structures in the foreground distance zone consist of power poles, conductor wires, and guy wires associated with an overhead power line and telephone line. The power poles are bold and linear in form, and relatively narrow. The power poles create strong, vertical lines that are simple. The conductor wires create curvilinear and nearly straight lines that become weaker to almost indistinguishable moving away from KOP 2. The lines created by guy wires are diagonal and very subtle. Power poles are brown to light brown in color. Wires are generally gray to dark gray in color. Plastic sheaths placed around the section of guy wires closest to the ground surface are very pale yellow in color. The texture of the structures in the foreground distance zone is smooth to indistinguishable.

Landforms visible in the middle-ground distance zone consist of a single rolling hill with gently sloping topography. The crest of the rolling hill creates a curving, non-directional line. Vegetation cover on the rolling hill prevents views of the colors and texture of the landform. The form of the vegetation cover is largely indistinguishable, but there are several evergreen trees on the top of the hill with conical-shaped form. Low shrubs and grasses on the slopes of the rolling hill appear light tan to pale brown in color. Evergreen trees are dark green and dark gray in color.

Vegetation in the middle-ground distance zone has no distinguishable textures or lines visible from KOP 2. There are no visible structures in the middle-ground distance zone either.

The background distance zone is characterized by higher mountain peaks and ridges. Topography is steep to moderately steep and slopes east, towards KOP 2. The higher peaks and ridges in the background distance zone create a strong continuous line at the skyline. Peaks are rounded and only slightly higher than the surrounding ridgeline; thus, the line where the skyline is met is smooth and flowing. The colors of the landforms in the background distance zone are dull, low-chroma shades of gray. The colors of the vegetation in the background distance zone are dull, low-chroma shades of gray, green and dark green. The form and texture of vegetation in the background distance zone is indistinguishable due to the distance separating it from KOP 2. Lines created by vegetation are also largely indistinguishable, but there are several evergreen trees that create a weak, irregular silhouette-line against the backdrop of the sky. There are no visible structures in the background distance zone.

KOP 3 (Henness Pass/Dog Valley Road)

KOP 3 is located on the shoulder of Henness Pass/Dog Valley Road, approximately 1,575 feet northwest of the intersection of Henness Pass/Dog Valley Road and Sunrise Creek Road (**Figure 5-B**). The angle of view at KOP 3 is north toward the existing #102 overhead transmission line.

The topography in the foreground distance zone is characterized by rolling hills with gentle to moderate slopes. Henness Pass/Dog Valley Road is characterized by a simple block-shaped form visible in the immediate foreground. The crest of the rolling hills creates a curving, non-directional silhouette-line against the backdrop of the sky. However, against the backdrop of the middle-ground distance zone, the line becomes weak to indistinguishable. A strong, curvilinear-line is formed by where the edge of Henness Pass/Dog Valley Road meets vegetation cover. The color and texture of the landforms in the foreground distance zone are generally indistinguishable because most of the area is vegetated. At the few places where landforms are visible, the color is generally light brown, and low-chroma. The texture appears coarse and random. The color of Henness Pass/Dog Valley Road appears mostly as varying low-chroma shades of gray and light brown. The texture of Henness Pass Road/Dog Valley is even, uniform, and granular due to the small gravels and stones used for the road surface.

Vegetation in the foreground distance zone consists mostly of low sparse cheatgrass (*Bromus tectorum*) and short shrubs that appear spiked or globular in form. There are also several Jeffrey pine trees in the foreground distance zone that have foliage with conical-shaped forms. Lines associated with the grass and shrub vegetation cover are irregular or indistinct. Thin vertical lines are formed by the trunks of the Jeffrey pine trees in the foreground distance zone. There are

trunks and large limbs of trees that were burned by wildfire in the foreground. The lines associated with these remains are either vertical or diagonal depending on whether or not the trunk has fallen since the wildfire. Cheatgrass and other grasses in the foreground distance zone is tan to light tan with overtones of gold in color. The colors of the shrubs in the foreground distance zone include brown, olive, pale green, and green. A sparse, uneven, and random texture characterizes the grass and shrub vegetation in the foreground distance zone. The foliage of Jeffrey pine trees is dark green and the tree trunks are dark brown and gray in color. The texture of the foliage of the pine trees is coarse and cause by the internal contrast of the foliage and the dark shadows cast by the foliage.

Structures in the foreground distance zone consist of power poles and conductor wires associated with the existing #102 overhead transmission line. The form of the power poles is bold, linear, and relatively narrow. The power poles create strong, vertical lines that are simple and relatively parallel with the lines formed by the trunks of Jeffrey pine trees and standing remains of burnt trees. Conductor wires have no visible form, and only very thin, very weak lines that are diagonal in direction. Power poles are brown to light brown in color. The color of the conductor wires is generally gray or not distinguishable. The texture of the power poles and conductor wires is also indistinguishable.

The rolling hills with moderate slopes that characterize the topography of the foreground distance zone also characterizes the background distance zone. The crest of the rolling hills creates a gently curving, flowing silhouette-line that is close to horizontal against the backdrop of the sky. Views of the colors and texture of the landforms in the background distance zone are prevented by vegetation cover. The colors of the vegetation in the background distance zone are the same as those visible in the foreground distance zone, only duller and of lower chroma due to the increased distance from which they are seen. Vegetation in the background distance zone has no distinguishable form, line, or texture. Visible structures in the background distance zone consist of power poles for the existing #102 overhead transmission line. The poles create vertical lines that are weak and subtle. The poles appear gray in color without a distinguishable texture.

Views of the middle-ground distance zone are obscured by rolling hills that characterize the topography and landforms in the foreground distance zone. Thus, landforms, vegetation, and structures that may occur in the middle-ground distance zone are not visible from KOP 3.

KOP 4 (Forest Boundary – West)

KOP 4 is located on the south shoulder of Henness Pass/Dog Valley Road, approximately 300 feet east of the intersection of Henness Pass/Dog Valley Road and Sunrise Creek Road (**Figure 5-B**). The angle of view at KOP 4 is west and roughly aligned with Henness Pass Road and an existing overhead distribution next to the road.

The topography in the foreground distance zone is gently sloping. The direction of the slope is north-northeast towards South Dog Creek. Henness Pass/Dog Valley Road is characterized by a simple block-shaped form. The edge of the paved road surface creates continuous curvilinear lines that are distinct. The road surface is gray in color and has a smooth to indistinguishable texture. The color and texture of the landforms in the foreground distance zone is not distinguishable because vegetation cover is present.

Vegetation in the foreground distance zone closest to KOP 4 consists of low sparse grasses and short shrubs that appear spiked or globular in form. Vegetation in the more distant foreground distance zone consists of coniferous forest dominated by Jeffrey pine. Forest vegetation is characterized by a horizontal strip-shaped form caused by dense evergreen foliage. However, evergreen foliage gives taller trees a conical or triangular shape. The grass and shrub vegetation cover has irregular to indistinct lines. The forest vegetation is much taller than the grasses and shrubs cover, and the trunks of individual trees create vertical lines. The vertical lines are very subtle closer to the ground surface where forest cover is most dense. The tops of the evergreen trees in the forest vegetation create a jagged silhouette-line against the backdrop of the sky. The grasses and most shrubs in the foreground distance zone are characterized by light brown, light green, and pale tan colors. Some shrubs are closer to true green in color. The colors of the forest vegetation are dark green, very dark brown, and very dark gray. Forest vegetation is characterized by a coarse dense texture caused by the contrast between evergreen foliage and dark shadows between the foliage. The texture of the grass and shrub vegetation is sparse, uneven and random.

Structures in the foreground distance zone consist of road signs and snow markers. The road signs and snow markers create short vertical lines that are not particularly distinct. Snow markers are orange in color and road signs are gray and brown in color.

The topography in the middle-ground distance zone slopes gently towards the east. The line, color, and texture of the landforms in the middle-ground distance zone are obscured by vegetation cover. Vegetation cover in the middle-ground distance zone is similar to the vegetation cover in the foreground distance zone. However, the forest cover is thinner in the middle-ground distance zone and the trunks of individual trees create vertical lines that are more prominent than those created by tree trunks in the foreground distance zone. Structures in the middle-ground distance zone consist of road signs. Road signs have no distinguishable lines or texture. The color of the signs include brown, yellow, and very pale brown. Views of the background distance zone are obscured by that landforms and vegetation in the middle-ground distance zone.

KOP 5 (Forest Boundary)

KOP 5 is located on the shoulder of Henness Pass/Dog Valley Road, approximately 125 feet northwest of the intersection of Henness Pass/Dog Valley Road and Sunrise Creek Road (**Figure 5-B**). The angle of view at KOP 5 is north-northwest towards the general location of where the existing #102 transmission line crosses Henness Pass/Dog Valley Road.

The topography in the foreground distance zone is gently sloping. The direction of the slope is east-northeast towards South Dog Creek. Henness Pass/Dog Valley Road is characterized by a simple block-shaped form visible in the immediate foreground. The gentle slope creates a soft, diagonal silhouette-line against the backdrop of the lighter vegetation cover on landforms in the middle-ground distance zone. Pine needles on the surface of Henness Pass/Dog Valley Road create a diffused edge between the road and the adjacent landform. The color and texture of the landforms in the foreground distance zone is not distinguishable because vegetation cover and pine needles are present.

Vegetation cover in the foreground distance zone consists primarily of an intermediate-aged coniferous forest of Jeffrey pine trees. The trunks of each tree create prominent vertical forms that are also tall and thin. Foliage on the upper half of trees creates a conical-shaped form. Sparse shrubs are present in the understory and appear spiked in form. The trunks of individual trees create hard vertical lines that are tall and bold. The understory shrub vegetation cover has irregular to indistinct lines. Pine needles also cover the forest floor and have no distinct form or lines. The forest vegetation appears dark green, brown, dark brown, and gray in color. Forest vegetation is characterized by a coarse dense texture caused by bark on the trunks of the trees, and by the contrast between evergreen foliage and dark shadows between the foliage. Understory shrubs appear dark gray and pale green in color. The texture of the understory shrub vegetation is sparse, uneven and random. Pine needles covering the forest floor are rust to light brown in color.

The topography in the middle-ground distance zone is characterized by rolling hills that gently slope south-southwest toward South Dog Creek. The crest of the rolling hills creates a curving, non-directional silhouette-line against the backdrop of the sky. However, the vegetation in the foreground distance zone shields most of the line from view, and causes the line to appear broken where it is visible. Views of the colors and texture of the landforms in the middle-ground distance zone are prevented by vegetation cover.

Vegetation cover in the foreground distance zone obstructs views of most of the vegetation cover that may occur in the middle-ground distance zone. However, vegetation appears to be dominated by low sparse grasses, and there are several shrubs and a few individual Jeffrey pine trees that are also visible. Grasses are light tan in color with an indistinct form. Shrubs appear

globular in shape and have no distinguishable lines. The trunks of the trees create vertical lines that are relatively bold and light brown to dark brown in color. Shrubs appear to be of low-chroma green in color. Vegetation cover in the middle-ground distance zone has no distinguishable texture.

Views of the background distance zone are obscured by rolling hills in the middle-ground distance zone. Thus, landforms, vegetation, and structures that may occur in the background distance zone are not visible from KOP 5. There are no structures in the foreground or middle-ground distance zones.

KOP 7 (Forest Route 41192 – North)

KOP 7 shares the same location as KOP 6, as shown on **Figure 5-C**. However, the angle of view at KOP 7 is north-northeast towards the general area where the existing Alturas 345 kV transmission line crosses the California state line.

The landforms in the foreground distance zone consist of nearly flat areas and low, gently sloping hills. The crest of the rolling hills creates a curving, non-directional silhouette-line against the backdrop of the sky. Forest Route 41192 and the intersection it has with an unnamed road create a flat and narrow form. The color and texture of the landforms in the foreground distance zone are generally not visible because vegetation cover obstructs views of most of the area. However, areas adjacent to roads in the lack dense vegetation cover and landforms appear reddish brown to brown in these areas. Small stones and large gravels within finer soils give the landforms in these areas a medium to coarse texture that appears rough. The color of Forest Route 41192 is pale brown, while the road it intersects is a slightly darker shade of brown with red-brown highlights. Both roads appear to have a fine and even texture. A hard, straight line is formed where the pale brown color of Forest Route 41192 meets the reddish brown color of the abutting landform; the direction of the line is diagonal.

Vegetation in the foreground distance zone consists of low sparse grasses that are spike shaped and occasional short shrubs that are globular shaped. The grass and shrub vegetation cover has irregular to indistinct lines. A small group of evergreen trees is visible on the crest of a low hill in the central foreground distance zone. The foliage of each tree creates a conical to triangle shaped form. The conical or triangle shape against the backdrop of the sky causes a jagged silhouette-line. Evergreen trees are dark green and very dark green in color. Grasses and shrubs appear light brown to dark brown, light tan, and dark olive in color. The texture is sparse and uneven in some areas but indistinguishable in others.

Tall mountain peaks and ridges of the Petersen Mountains characterize the landforms visible in the middle-ground distance zone. The peaks and ridges create an irregular, sub-angular

silhouette-line against the backdrop of the sky. The background distance zone is characterized by tall mountain peaks and ridges similar to the middle-ground distance zone, and topography is moderately steep. Vegetation cover in the middle-ground and background distance zones is not distinguishable. However, the color of the vegetation cover in the middle-ground distance zone is light brown to brown, with occasional clusters of dark brown visible. The dark brown clusters are associated with evergreen trees that are otherwise indistinguishable from KOP 7. Vegetation cover in the background distance zone is dark gray. All colors in the middle-ground and background distance zones are low-chroma. Textures are not discernible from KOP 7.

Structures visible in the foreground distance zone consist of a single overhead power line. The power line is located at the most distant region of the foreground distance zone, at the margin with the middle-ground distance zone. At this distance only the power pole structures are visible, but even these appear very faint. Short, very weak, soft lines that are vertical are created by the power poles. Structures have no discernible texture or color. Structures are not visible in the middle-ground or background distance zones.

2.5.2 Peavine Alternative

Visual Character

To facilitate the inventory of landscape features and describe the existing visual character, the Peavine Alternative study area was divided into four sub-areas: Bordertown sub-area, Central sub-area, Southern sub-area, and Verdi sub-area.

The Bordertown sub-area corresponds with the portion of the study area containing the existing Bordertown Substation and the first approximately 2.0 miles of the Peavine Alternative from the substation. The existing visual character within this sub-area is the same as described for the Bordertown sub-area of the Mitchell Alternative in **Section 2.5.1** of this Specialist Report.

The Central sub-area corresponds with the portion of the study area containing the next approximately 7.5-mile section of the Peavine Alternative. The existing visual character within this area is the same as described for the Central sub-area of the Mitchell Alternative in **Section 2.5.1** of this Specialist Report.

The Southern sub-area corresponds with the portion of the study area containing the next approximately 0.6-mile section of the Peavine Alternative. The existing visual character within this sub-area is the same as described for the Southern sub-area of the Mitchell Alternative in **Section 2.5.1** of this Specialist Report.

The Verdi sub-area corresponds with the portion of the study area containing the existing California Substation and the last approximately 0.2 mile of the Peavine Alternative before the

substation. The existing visual character within this sub-area is the same as described for the Verdi sub-area of the Mitchell Alternative in **Section 2.5.1** of this Specialist Report.

Federal Visual Resource Management Areas

As shown on **Figure 5-A**, the VQOs that have been assigned to the NFS land that would be crossed by the Peavine Alternative include Maximum Modification, Modification, Partial Retention, and Retention. There is no NFS land within the study area that has been assigned the Preservation VQO. However, there is NFS land that has not been assigned any VQO. All BLM-administered public lands within the study area are managed as VRM Class III (**Figure 5-A**). The acres of VQO and BLM VRM Class III that would be contained with the proposed ROW area for the Peavine Alternative are summarized in **Table 10**.

Key Observation Points

The KOPs that have been selected for the Peavine Alternative include KOPs 1, 2, 3, 4, 5, and 7, as listed in **Table 11** for the Mitchell Alternative. **Section 2.5.1** provides a description of the characteristic landscape of KOPs 1 through 5, and KOP 7. The location of the KOPs is shown on **Figure 5-A**.

2.5.3 Poeville Alternative

Visual Character

To facilitate the inventory of landscape features and describe the existing visual character, the Poeville Alternative study area was divided into six sub-areas: Bordertown sub-area, Peavine sub-area, Trail Drive sub-area, Poeville sub-area, Peavine Peak sub-area, and East Verdi sub-area.

The Bordertown sub-area corresponds with the portion of the study area containing the existing Bordertown Substation and the first approximately 2.0 miles of the Poeville Alternative from the substation. The existing visual character within the Bordertown sub-area is the same as described for the Bordertown sub-area of the Mitchell Alternative in **Section 2.5.1** of this Specialist Report.

The Peavine sub-area corresponds with the portion of the study area containing the next approximately 4.2-mile section of the Poeville Alternative. This sub-area consists mostly of undeveloped shrubland dominated by the same species as the Bordertown sub-area, as described in **Section 2.5.1** of this Specialist Report. Existing development within the Peavine sub-area includes a railroad track, North Virginia Street and other unpaved roads, and U.S. Highway 395. North Virginia Street is a highway frontage road that is roughly parallel with U.S. Highway 395. The existing Alturas 345 kV transmission line occurs throughout the Peavine sub-area, and is roughly parallel and adjacent to North Virginia Street. There are also several overhead power

lines and telephone lines within the sub-area. Structures within the sub-area are limited to two residential sites, one of which is the historic Peavine Ranch Property. Both residential sites include the primary residential structure as well as smaller accessory structures, driveways, and vehicles. Large deciduous trees are located throughout the Peavine Ranch Property.

The Trail Drive sub-area corresponds with the portion of the study area containing the next approximately 1.1-mile section of the Poeville Alternative. Most of the Trail Drive sub-area is developed with residential structures and roads. It is estimated that there are more than 150 residences within this sub-area. The majority of these structures are located north of U.S. Highway 395, which also crosses this sub-area. Many of the other existing roads within this sub-area serve as residential collector streets, such as unpaved Trail Drive and Mar Mac Way and paved North Virginia Street. In addition to primary residential structures, most residences also include small accessory structures, fences, driveways, parked vehicles, and landscaping. Several residences also have large trees on the property. The existing Alturas 345 kV transmission line is located adjacent to the north side of North Virginia Street, about 0.1 mile north of most of the segment of proposed centerline within this sub-area. Most of the residences within close proximity to Trail Drive and this segment of the proposed centerline are also within relatively close proximity to the Alturas 345 kV transmission line. Several existing overhead distribution power lines and telephone lines also cross the Trail Drive sub-area. Undeveloped areas within the Trail Drive sub-area are characterized by open shrubland.

The Poeville sub-area corresponds with the portion of the study area containing the next approximately 3.2-mile section of the Poeville Alternative. This sub-area consists of undeveloped to lightly developed land. Undeveloped areas are characterized by open shrubland, some of which is the result of a past wildfire (**Figure 4**). There are also isolated areas of riparian vegetation cover adjacent to Peavine Road. Peavine Road is one of several unpaved roads that cross the Poeville sub-area and provide access to NFS land and private land around Peavine Peak. An existing distribution line that would be constructed as an under-build on the pole structures for the segment of the Poeville Alternative within this sub-area is located next to Peavine Road. The existing distribution power line diverges from Peavine Road within the southern portion of the Poeville sub-area and coincides with an unpaved two-track road instead. There is also an existing gravel pit/aggregate operation located immediately next to and west of Peavine Road and evidence of past mining activities east of the road that are located within the Poeville sub-area.

The Peavine Peak sub-area corresponds with the portion of the study area containing the next approximately 5.4-mile section of the Poeville Alternative. Most of this sub-area consists of undeveloped private land that has burned during past wildfires (**Figure 3**). Consequential to the wildfires, existing vegetation cover is dominated by cheatgrass, which is an invasive species

prone to colonizing areas burned by wildfire (Colorado State University Extension 2012). Development within the Peavine Peak sub-area is limited to several unpaved roads and trails.

The East Verdi sub-area corresponds with the portion of the study area containing the existing California Substation and the last approximately 2.1-mile section of the Poeville Alternative before the substation. Existing land uses within this sub-area include the inactive #632 power line that this section of the Poeville Alternative would replace, and the existing #114 and #106 transmission lines that would be located next to this section of the alignment. There are also other overhead distribution power lines and overhead communications lines located within the East Verdi sub-area. The existing California Substation is located at the west end of this sub-area. An electrical-power house is located on the banks of the Truckee River, within very close proximity to existing transmission lines that crossing the East Verdi sub-area. Other utility corridors within this sub-area include an existing buried gas pipeline.

It is estimated that there are at least 250 residences located within the East Verdi sub-area. More than half of these are concentrated in the western half of the sub-area. However, residential development is least dense in the area surrounding the California Substation, which is at the far western end of the sub-area. The portion of the East Verdi sub-area southwest of the substation consists of open pasture land for horses. Other structures located within the East Verdi sub-area include the Verdi Public Library on Bridge Street, the Verdi Elementary School next to the library, the Verdi Post Office, and a bar/restaurant and group of industrial/warehouse structures east of the post office. Parking lots and accessory facilities, such as elementary school baseball fields, associated with these structures are also located within the East Verdi sub-area.

Most of the roads within the East Verdi sub-area are paved residential collector streets, but there are some minor unpaved roads as well. Some of the specific residential collector streets that occur within this area include Prickly Pear Drive, Hansen Drive, Lakeview Drive, Ana Mandara Creek, Bridge Street, and Hill Lane (**Figure 4**). This sub-area is also crossed by 3rd Street (i.e., Old Highway 40), which is a paved arterial road.

The Truckee River crosses the East Verdi sub-area at two locations, and approximately three miles of the river would be located within the boundary of the study area. The Truckee River is commonly used for recreation, especially during summer months. Tall deciduous trees and riparian shrubs and grasses characterize the undeveloped portions of the river banks. Other undeveloped areas within the sub-area consist predominantly of open shrubland or cheatgrass. Parts of fairways, greens, and other areas of golf course grass associated with an abandoned golf course are also located within the East Verdi sub-area.

Federal Visual Resource Management Areas

The VQOs that have been designated for the NFS land that would be crossed by the Poeville Alternative include Modification and Partial Retention (**Figure 5-A**). There is not any NFS land within the Poeville Alignment study area that has been assigned the Maximum Modification, Retention, or Preservation VQO. However, there is NFS land without an assigned VQO that was transferred to the USFS from the BLM in 1988 under the Nevada Enhancement Act. All BLM-administered public lands within the study area are managed as VRM Class III (**Figure 5-A**). The acres of each VQO and BLM VRM Class III that would be contained with the proposed ROW area for the Poeville Alternative are summarized in **Table 9**.

Key Observation Points

The KOPs that have been selected for the Poeville Alternative are listed in **Table 12**. **Figure 5-A** shows the location of the KOPs in relation to the Poeville Alternative. A narrative of each KOP describing the physical location of the KOP, the angle of view, and the characteristic landscape of the KOP follows **Table 12**. Representative photographs of the characteristic landscape from each KOP are provided in **Appendix A**, and were used to prepare the KOP narratives.

Table 12 Key Observation Points – Poeville Alternative

KOP Number	KOP Name
KOP 9	Peavine Ranch
KOP 10	Peavine Ranch – Southwest
KOP 11	Peavine Road
KOP 12	Stead Trailhead
KOP 13	Trail Drive – East
KOP 14	Trail Drive – West
KOP 15	Truckee River Bridge
KOP 16	Verdi Library Parking Lot – West
KOP 17	Verdi Library Parking Lot – East

KOP 9 (Peavine Ranch)

KOP 9 is located on the south shoulder of North Virginia Street, approximately 1,975 feet west of the U.S. Highway 395 and Red Rock Road interchange (**Figure 5-D**). The angle of view at is east and roughly aligned with the section of North Virginia Street immediately east of KOP 9.

The topography in the foreground distance zone gently slopes east towards a culvert drain beneath U.S. Highway 395. The embankment of the highway is steeper than most of the surrounding landforms, which gives it an apparent block-shaped form. The road surface of the highway is narrow and strip-shaped in form. North Virginia Street has a distinct, definite block-shaped attributed to its flattened appearance relative to surrounding landforms. The edge of the road surface of North Virginia Street creates a continuous curvilinear line that divides the

immediate foreground distance zone in two. The crest of the rolling topography creates a strong, definite silhouette-line against the backdrop of the sky south of North Virginia Street. A soft, straight line that is nearly horizontal is formed where the embankment of U.S. Highway 395 and the surface of the highway converge. Landforms in the foreground distance zone appear to have a fine- to medium-grained texture and are light gray and very light brown in color. The surface of North Virginia Street is light gray in color, and has a fine granulated texture. U.S. Highway 395 is also gray in color, but has no distinguishable texture.

Vegetation in the foreground distance zone is dominated by low sparse grasses and short shrubs that appear spiked or globular in form. There are occasional taller shrubs at isolated locations that are also globular shaped. The grass and shrub vegetation cover has irregular to indistinct lines. The grasses and most shrubs in the foreground distance zone are characterized by light brown, light green, and pale tan colors. Some shrubs are closer to true green in color and other are olive colored. A prominent, complex strip-shaped form is created by dense riparian vegetation cover growing along the crest of a low slope south of North Virginia Street. The color of the riparian vegetation is bright green, green, and dark green. The height and the difference in the color of this vegetation relative to surrounding shrubs and grasses creates a strong, irregular, and complex line. The texture of the vegetation is sparse, uneven and random. There is also a single black cottonwood (*Populus trichocarpa*) in the immediate foreground that is tall and globular shaped. The trunks and limbs of the tree are gray in color with no distinguishable texture. The foliage is dark green and green, and high-chroma. The foliage appears to have a coarse dense texture due to the contrast between clumps of foliage and the dark shadows between the clumps of foliage.

The prominent structures in the foreground distance zone include the power poles and conductor wires associated with the Alturas 345 kV overhead transmission line and an existing distribution and telephone line. The power poles used for the Alturas transmission line have a bold, linear form that is vertically oriented. These power poles are dark brown to rust colored, and the texture is smooth to indistinguishable. The power poles used for the distribution and telephone line have a similar form, but are light brown in color and the texture is generally not distinguishable.

Both types of power poles create strong, hard lines that are vertical and tall. However, the power poles used for the Alturas transmission line are taller and their darker color cause the vertical lines to appear bolder. The cross-arm supports on both types of power poles create very thin, short, horizontal lines. Conductor wires and the telephone wire form curvilinear lines that are very thin and continuous, and gray to dark gray in color.

Other structures in the foreground distance zone include fence posts, road signs, several residential buildings, and accessory structures. Fence posts have a short, narrow form and create

thin vertical lines that are short and weak. The fence posts are dark gray and light gray in color, and have no visible texture. Road signs have a similar form and create similar lines that are short, thin, and vertical. The color of the road signs is gray and the texture is not discernible. Residential structures in the foreground distance zone have block-shaped forms that are small due to their distance from KOP 9. The color of the structures is generally light and dark shades of gray.

The middle-ground distance zone is visible only in the area north of U.S. Highway 395 because landforms in the foreground distance zone obstruct views south of the highway. Topography appears to be nearly flat in the middle-ground distance zone. Most of the area appears to be developed with residential structures and a convenience store is also visible next to the highway. The residential structures appear mostly as shades of gray in color. The convenience store is white and red, and the sign includes yellow colors. Visible vegetation cover exists as tree tops protruding from in between residential structures. The foliage is dark green in color and has no discernible texture. The color of the structures and the tree foliage create a bold, irregular silhouette-line against the backdrop of the low-chroma light brown and gray colors of the background distance zone.

The background distance zone is characterized by higher mountain peaks and ridges. Topography is gentle to moderately steep and slope direction depends on aspect. The higher peaks and ridges in the background distance zone create a strong, curving silhouette-line against the backdrop of the sky. The colors of the landforms in the background distance zone are dull, low-chroma shades of gray and light brown. Texture is generally indistinguishable in the background distance zone. There are no visible structures in the background distance zone.

KOP 10 (Peavine Ranch – Southwest)

KOP 10 is located on the road embankment separating North Virginia Street and U.S. Highway 395, approximately 1,150 feet west of the U.S. Highway 395 and Red Rock Road interchange (**Figure 5-D**). The angle of view at KOP 10 is towards the southwest.

The landforms in the foreground distance zone consist of a gently rolling hill that slopes northeast and a slightly steeper slope where KOP 10 is located. The two primary landforms in the foreground distance zone are divided by the long, narrow linear form of North Virginia Street. Dense vegetation cover obstructs views of the color and texture of the landforms in foreground distance zone. The color of North Virginia Street is primarily gray, but the centerline of the road is marked by a yellow-colored line. The surface of the road appears to have a fine, even texture. A hard, straight line is formed by the edge of the pavement on the road surface.

Vegetation in the foreground distance zone immediately surrounding KOP 10 consists of high, sparse shrubs and low grasses that appear to have spike-shaped forms. Vegetation cover in most of the other parts of the foreground distance zone is dominated by low sparse grasses with no discernible form, and short shrubs that appear as globular-shaped forms. The color of the grass vegetation is very light tan and very pale brown. Shrubs are predominantly light brown, light gray, olive, and low-chroma green in color. The texture of the vegetation is sparse, uneven, and random.

A prominent, complex irregular-shaped form is created by mature, tall black cottonwood trees and maintained residential lawn surrounding a residential structure next to North Virginia Street. The color of the foliage is bright green, green, and bright olive, and generally high-chroma. The foliage appears to have a coarse dense texture due to the contrast between clumps of foliage and the dark shadows between the clumps of foliage. The trunks and limbs of several trees are visible, and are light and dark gray in color with no distinguishable texture. The trunks create subtle vertical lines that are relatively tall. The color of the lawn grass is also high-chroma and green. The height of the trees and the difference in the color of the foliage and lawn grass relative to surrounding shrub vegetation creates a strong, but irregular and complex line.

Structures in the foreground distance zone include the power poles and conductor wires associated with the Alturas 345 kV overhead transmission line and an existing distribution and telephone line. The power poles used for the Alturas transmission line have a bold, linear form that is vertically oriented. These power poles are dark brown to rust colored, and the texture is smooth to indistinguishable. The power poles used for the distribution and telephone line have a similar form, but are light brown in color and the texture is generally not distinguishable. Both types of power poles create strong, hard lines that are vertical and tall. However, the power poles used for the Alturas transmission line are substantially taller and their darker color cause the vertical lines to appear bolder. The cross-arm supports on the Alturas line power poles create very thin, short, horizontal lines. Conductor wires and the telephone wire contribute very thin, continuous curvilinear lines that are gray to dark gray in color.

Other structures in the foreground distance zone include a residential building and several associated accessory structures. The structures have a block-shaped form that is regular and geometric. The sides of the structures create hard vertical lines and the rooftops create hard vertical lines. The vertical lines created by the accessory structures appear to be taller because the surrounding vegetation consists of low shrubs instead of tall cottonwood trees, which surround the residential structure. The color of the residential structure is white and very light gray. The color of the accessory structures is brown and dark brown and the roofs are light gray. The texture of the roofs appears smooth, but the rest of the structures have no distinguishable texture.

The middle-ground distance zone is characterized by higher ridges and rounded mountain peaks. The topography is moderately steep and slopes towards the northeast. The peaks and crest of the ridges create a strong, smooth silhouette-line against the backdrop of the sky. Lower peaks and ridges below the skyline create soft diagonal lines. The colors visible in the middle-ground distance zone are associated with vegetation cover and include moderately low-chroma shades of green, tan, brown, and dark brown. There are no visible structures in the middle-ground distance zone. Mountain peaks and ridges in the middle-ground distance zone obstruct views of the background distance zone.

KOP 11 (Peavine Road)

KOP 11 is located on the west shoulder of Peavine Road, approximately two miles south-southwest of the intersection of Peavine Road and North Virginia Street (**Figure 5-D**). The angle of view at KOP 11 is southwest and roughly aligned with an existing overhead distribution line.

Peavine Road is the prominent form in the foreground distance zone and it is simple, distinct, and linear-shaped. The width of the road narrows as distance from KOP 11 increases. Peavine Road is unpaved, and the texture of the road surface is granular and fine. The color of the road surface is gray and dark gray, with overtones of very light brown in places. Striations in the colors create long curvilinear lines within the road surface that are parallel with the edge of the road. The edge of the road surface also creates long, curvilinear lines that are soft but bold and distinct.

A strip-shaped landform that is nearly flat occurs parallel and adjacent to the west side of the road. Other landforms in the foreground distance zone are characterized by rolling hills that gently slope downwards to this strip-shaped landform, or the other side of Peavine Road. The color and texture of the landforms in the foreground distance zone are generally indistinguishable because most of the area is vegetated. However, landforms where vegetation is absent are dark brown in color, and finely textured.

Vegetation in the foreground distance zone consists of low, sparse shrubs and short grasses. The form of the shrubs appears as both spike and globular shapes. The grass and shrub vegetation cover has irregular to indistinct lines. The grasses are light tan, light brown, and dark brown in color. Shrubs are also these colors, as well as olive, brown, gray, and brownish yellow. The vegetation cover located on the crests of rolling hills in the foreground distance zone create a soft, irregular silhouette-line against the backdrop of the low-chroma color of the vegetation in the middle-ground distance zone. A strip of dense riparian shrubs that are less sparse and distinctly taller than surrounding vegetation create a complex, contrasting line between the nearly flat landform adjacent to Peavine Road and the gently sloping landform west of it. The

color of the riparian shrubs is green, bright green, and dark green, and is generally more brilliant than the color of surrounding vegetation.

Structures in the foreground distance zone consist of power poles and conductor wires associated with an existing overhead distribution line. The power poles are bold and linear in form, and relatively narrow. The power poles create strong, vertical lines that are simple and relatively parallel with one another. Power poles are brown to light brown in color. The conductor wires create nearly straight silhouette-lines that are very weak against the backdrop of the sky. The wires are generally not visible when viewed against the backdrop of the landforms and vegetation in the foreground and middle-ground distance zones.

The rolling hills with gentle slopes that characterize the topography of the foreground distance zone also characterizes the landforms in the middle-ground distance zone. Views of the colors and texture of the landforms in the background distance zone are prevented by vegetation cover. The colors of the vegetation in the background distance zone are the same as those visible in the foreground distance zone, only duller and of lower chroma due to the increased distance from which they are seen. Vegetation in the background distance zone has no distinguishable form, line, or texture. Visible structures in background distance zone consist of power poles for an overhead distribution line. The poles create vertical lines that are weak and subtle. The poles appear dark gray in color and have no distinguishable texture.

The background distance zone is characterized by a gently rising ridge with rolling topography. The crest of the ridge creates a strong continuous, flowing silhouette-line against the backdrop of the sky. The colors of the landforms in the background distance zone are dull, low-chroma shades of gray and brown. Texture is generally indistinguishable in the background distance zone. There are no visible structures in the background distance zone.

KOP 12 (Stead Trailhead)

KOP 12 is located at the Stead Trailhead on the east shoulder of Peavine Road, approximately 4,025 feet south-southwest of the intersection of Peavine Road and North Virginia Street (**Figure 5-D**). The angle of view at KOP 12 is south-southwest and roughly aligned with Peavine Road and an existing overhead distribution next to the road.

The topography in the foreground distance zone ranges from almost flat to mildly sloping. Sloping landforms are roughly triangular in shape and flatter landforms are mostly block-shaped. Peavine Road and an unpaved road next to and roughly parallel with Peavine Road are linear forms that effectively divide the landforms in the foreground distance zone. The landforms west of Peavine Road create a simple diagonal silhouette-line against the backdrop of the taller mountains in the background distance zone. The crest of a low ridge east of Peavine Road forms

a nearly straight horizontal line that is weak. The edge of the unpaved road surface on Peavine Road creates long, curvilinear lines that are soft but distinct and relatively simple. Curvilinear lines are also created by the edge of the unpaved road next to Peavine Road, but the lines are more complex and irregular.

The color and texture of the landforms in the foreground distance zone are generally indistinguishable because most of the area is vegetated. However, landforms where vegetation is absent or sparse are light to dark brown in color. The texture of these areas is rough and uniform. Peavine Road appears light gray and very light brown in color. Long curvilinear lines that are roughly parallel with the edge of the road surface are created by faint striations in the colors of the road surface. The other unpaved road appears light brown in color, and striations among the faint variations of light brown colors also creates curvilinear lines. The surface of Peavine Road has a fine texture. Larger stones and less maintenance of the surface of the other road in the foreground distance zone give it a coarser texture.

Vegetation cover in the foreground distance zone between the two unpaved roads and west of Peavine Road is dominated by sparse low grasses with occasional short shrubs at isolated locations. The grasses have a spike-shaped form between the two roads, and a form that is indistinguishable west of Peavine Road. Shrubs are globular-shaped in form. The vegetation cover elsewhere in the foreground distance zone is dominated by sagebrush and other low shrubs. Viewed individually, each shrub is globular-shaped in form, but when viewed collectively, the form is rough and amorphous. Shrubs and most grasses have irregular to indistinct lines, but grasses in the area between the two roads have short, broken straight lines that become indistinguishable as distance from KOP 12 increases. The grasses and most shrubs in the foreground distance zone are characterized by light brown, light green, and tan colors. A few shrubs are closer to olive in color, and several west of Peavine Road appear gray due to a wildfire that occurred in that area. The texture of the grass and shrub vegetation is sparse, uneven and random.

Structures in the foreground distance zone consist of a marker for an underground utility line and a single fence post stake. The form of both structures is short, straight, and linear. The utility line marker is white and dark orange in color and the fence post appears dark gray in color. Neither structure has a discernible texture.

The topography in the middle-ground distance zone is steeper than in the foreground distance zone, but still gently sloping. Landforms consist of rolling hills with rounded peaks. A bold, flowing silhouette-line is created by the crest of the rolling hills and peaks against the backdrop of the sky. Vegetation cover obstructs views of the colors and textures of the landforms in the middle-ground distance zone. Vegetation cover in the middle-ground distance zone is light

brown to dark brown in color, and colors are dull and low-chroma. The form, line, and texture of the vegetation cover in the middle-ground distance zone is generally indistinguishable due to the distance separating it from KOP 12. Structures in the middle-ground distance zone consist of several power poles associated with an overhead distribution line. The power poles have a vertical, thin linear-shaped form. The power poles are generally visible only where a weak silhouette-line is formed where they appear against the backdrop of the sky. There are no discernible textures or colors associated with the power poles.

The background distance zone contains landforms similar to the middle-ground distance zone, but the peaks are higher and slightly less rounded, and the topography is steeper. A bold, flowing silhouette-line is created by the crest of the ridges and peaks against the backdrop of the sky. Vegetation cover in the background distance zone is light gray and dark gray in color, and colors are dull and low-chroma. Dark gray color is associated with coniferous forest cover. The form, line, and texture of the vegetation cover in the background distance zone is generally indistinguishable due to the distance separating it from KOP 12. There are no visible structures in the background distance zone.

KOP 13 (Trail Drive – East)

KOP 13 is located on the approximate centerline of Trail Drive, approximately 2,025 feet west of the intersection of Trail Drive and Mar Mac Way (**Figure 5-D**). The angle of view at KOP 13 is east and roughly aligned with Trail Drive and an existing overhead distribution line.

The topography in the foreground distance zone is near to flat and the landforms are low, wide, and also nearly flat. Trail Drive is the prominent form in the foreground distance zone and it is simple, distinct, and linear-shaped. The road is aligned in an east-west direction and the foreground distance zone is effectively divided into areas north of the road and areas that are south. Trail Drive is unpaved, and the texture of the road surface is granular and fine. The color of the road surface is brown, gray and dark gray. Striations in the colors create long curvilinear lines within the road surface that are roughly parallel with the edge of the road. The edge of the road surface also creates soft lines that are long, nearly straight, and irregular. The texture of the road appears medium- to coarse-grained due to varying sizes of gravels and stones on its surface.

Vegetation cover in the foreground distance zone is dominated by sparse low grasses, with interspersed short shrubs at isolated, random locations. The tallest grasses have a spike-shaped form, but most grass has no distinguishable form. Shrubs are globular-shaped in form. Grasses and shrubs have irregular to indistinct lines. The grasses in the foreground distance zone appear predominantly light tan in color; shrubs appear olive, light and dark gray, dark green, and brown in color. The texture of the grass and shrub vegetation is sparse, uneven and random. A dense, narrow strip of taller shrubs is located adjacent to the south side of Trail Drive. The shrubs are

dark green, olive, and dark gray in color, and have coarse, clumped texture. The colors contrast with the light tan color of the grasses behind the shrubs, which creates a strong irregular silhouette-line.

Structures in the foreground distance zone include power poles and conductor wires associated with an existing overhead distribution line and the Alturas 345 kV transmission line, residences and accessory structures, and several vehicles appearing to be immobile. The overhead distribution line is located adjacent to the south side of Trail Drive, and the conductor wires create very thin, weak lines that are roughly parallel with the edge of the road surface. A telephone wire is also installed on the power poles which creates a similar parallel line except that it is thicker and more prominent. The telephone wire is dark gray in color and overhead conductor wires are light gray to gray. The power poles are linear-shaped forms with tall, thin, vertical lines. Power poles further from KOP 13 appear thinner and shorter, and as a result, have weak vertical lines associated with them. The power poles appear to be very dark brown in color, and have no apparent texture.

The power poles used for the Alturas transmission line are located north of Trail Drive and are separated from KOP 13 by a considerable distance. The distance causes the vertical, linear-shaped form of the poles to appear relatively short despite being taller than surround structures and vegetation. The vertical lines created by the poles are weak and subtle. The power poles closer to KOP 13 appear dark gray in color, while those located further away appear as low-chroma shade of light gray. Conductor wires are not visible from KOP 13.

Residential structures, including accessory buildings, appear as block- and triangular-shaped forms with short vertical and horizontal lines. The roofs of structures are gray and brown in color. Exterior walls are gray, light brown, and white in color.

Views of the middle-ground distance zone are obscured by the vegetation cover and landforms in the foreground distance zone. The background distance zone consists of wide, flat open areas with nearly flat topography that is very similar to the foreground distance zone. The landforms create a thin, horizontal strip-shaped form between the foreground distance zone and the sky. A bold, horizontal silhouette-line is formed by the appearance of the landform against the backdrop of the sky. The color of the vegetation cover in the background distance zone is dull, somewhat low-chroma shades of brown and tan. The form, line, and texture of the vegetation cover in the background distance zone is indistinguishable due to the distance from KOP 13 at which it is viewed. There are no visible structures in the background distance zone.

KOP 14 (Trail Drive – West)

KOP 14 is located at the intersection of Trail Drive and Mar Mac Way (**Figure 5-D**). The angle of view at KOP 14 is towards the west and roughly aligned with Trail Drive and an existing overhead distribution line.

The topography in the foreground distance zone is nearly flat to very gently sloping. Trail Drive is the prominent form in the foreground distance zone and it is simple, distinct, and linear-shaped. The road is aligned in an east-west direction and the foreground distance zone is effectively divided into two landforms, one being north of the road and the other south. The landforms are low and also nearly flat. Trail Drive is unpaved, and the texture of the road surface is granular and fine. The color of the road surface is brown, gray and dark gray. Striations in the colors create long curvilinear lines within the road surface that are roughly parallel with the edge of the road. The edge of the road surface also creates soft lines that are long, nearly straight, and irregular. The texture of the road surface appears medium- to coarse-grained due to varying sizes of gravels and stones on the road.

Vegetation in the foreground distance zone consists of low shrubs and short grasses south of Trail Drive, and relatively taller trees with a sparse understory of short grasses north of Trail Drive. There are also several trees south of Trail Drive that surrounds a residential structure and a group of trees at visible at the far end of Trail Drive. Low grasses appear as spiked-shaped forms with indistinct lines. Most grasses are very light tan and light golden in color, with no apparent texture. Shrub vegetation has a globular form with no distinct lines. Shrubs are gray, light brown, brown, and dark green in color. Contrast in the color of the shrub foliage and darker shadows between foliage give the appearance of a clumped, medium-grained texture. The trees surrounding the residence south of Trail Drive and the trees at the end of Trail Drive also have a globular form with a similar texture as shrubs. However, the foliage on these trees is a much brighter, brilliant green color than the color of lower shrubs. The trees north of Trail Drive are deciduous, and the trunks of each tree create thin, linear forms with vertical lines. The foliage is dense and appears as a solid globular form that is bright green, yellowish green, and green in color. The variations in these colors create the appearance of a coarse stippled texture.

Structures in the foreground distance zone include power poles and conductor wires associated with an existing overhead distribution line, residences and accessory structures, and several types of fences. The overhead distribution line is located adjacent to the south side of Trail Drive, and the conductor wires create very thin, weak lines that are roughly parallel with the edge of the road surface. A telephone wire is also installed on the power poles which creates a similar parallel line except that it is thicker and more prominent. An overhead telephone wire also diagonally crosses the immediate foreground distance zone directly in front of KOP 14. Telephone wires are dark gray in color and overhead conductor wires are light gray to gray. The

power poles are linear-shaped forms with tall, thin, vertical lines. Power poles further from KOP 14 appear thinner and shorter, and as a result, have weak vertical lines associated with them. The power poles appear to be very dark brown in color, and have no apparent texture. The power poles continue to be visible into the middle-ground distance zone, with the lines and colors of each becoming weaker with distance.

Residential structures and accessory buildings appear as block- and triangular-shaped forms with short vertical and horizontal lines. Vertical lines are generally taller than surrounding vegetation, but shorter than the vertical lines associated with the power poles in the foreground distance zone. The roofs of structures are dark gray, very light gray, and very pale green in color. Exterior walls are pale red, light brown, brown, and white in color. Numerous wooden posts of a wire-style fence are visible south of Trail Drive, although the wire strands between the posts are not visible. The posts have a simple and solid form, and create hard lines that are short and vertical. The posts are very dark brown in color and have no distinct texture. Several wooden privacy fences are visible north of Trail Drive. The style and design of the fences give them a strip-shaped form that is low and roughly horizontal. The fences are various shades of light and dark brown. Variations in the colors create short, straight vertical lines along the length of the fences, and give the fence a subtle, striped texture.

Landforms in the middle-ground distance zone consist of a single, wide hillside that slopes gently towards the east. Vegetation cover is present on the entire hillside except where a short section of U.S. Highway 395 traverses the slope. The vegetation cover is brown and light brown in color. The contrast between the brown and light brown colors gives the slope a fine, stippled texture. The color of the vegetation cover also creates a soft, simple silhouette-line against the backdrop of the lighter tan and brown colors in the background distance zone. The silhouette-line is close to horizontal. The section of U.S. Highway 395 visible on the hillside consists of a divided roadway, with travel lanes of opposing directions separated by a vegetated median. The surface of the travel lanes, dark gray in color, has no distinguishable texture. The dark gray color of the road surface creates sharply curving lines next to the light brown- and brown-colored vegetation surrounding it.

The landforms in the background distance zone consist of higher slopes and hills with rounded peaks that rise southeast, towards Peavine Peak. Topography is moderately sloping, but is generally not excessively steep. The crest and summit of the slopes and hills form a strong, flowing silhouette-line against the backdrop of the sky. The colors of the landforms in the background distance zone are dull, low-chroma shades of gray, light brown, and light tan due to vegetation cover. Narrow strip-shaped forms are created by taller vegetation with green-colored foliage growing in topographic valleys between several of the hills. Texture is generally

indistinguishable in the background distance zone. There are no visible structures in the background distance zone.

KOP 15 (Truckee River Bridge)

KOP 15 is located at the east side of the bridge crossing of State Route 425 over the Truckee River. The intersection of State Route 425 and Bridge Street in Verdi is approximately 4,350 feet west of KOP 15 (**Figure 5-B**). The angle of view at KOP 15 is north towards the existing #106 and #114 overhead transmission lines.

The landforms in the foreground distance zone consists of a single slope with very gentle topography. The topography slopes south, perpendicular to the angle of view. Because the direction of KOP 15 angle of view and the slope are perpendicular, the crest of the slope forms a horizontal line. Vegetation cover causes the line to be complex and irregular, but does not distort its general horizontal orientation.

Vegetation cover consists primary of short shrubs and low grasses. Most of the grass in the foreground distance zone appears to be cheatgrass, and is very light tan to light golden in color. The majority of the shrubs are light green and yellowish green in color, but there are also some shrubs that are reddish brown, light brown, and gray in color. Shrubs appear as globular forms, and larger patches of grass between shrubs have an amorphous, irregular-shaped form. Grasses and shrubs have irregular to indistinct lines. A small group of tall deciduous trees occur along the crest of the slope and a large, tall shrub is also visible at a single location of the slope. The shrub is dark green in color, and has a globular-shaped form. The foliage of the deciduous trees also create a globular-shaped form, but the color of the foliage is light green and green.

Structures in the foreground distance zone consist of a barbed-wire fence. Very thin, straight lines are formed by the individual strands of barbed wire. The lines are near horizontal in direction. Fence stakes are very narrow, and create short, thin, vertical lines. The stakes are a dull olive color and have no distinguishable texture.

Views of the landforms and vegetation cover that may occur in the middle-ground distance zone are obstructed by the landforms and vegetation cover in the foreground distance zone. However, a single power pole structure associated with the #106 transmission line is visible in the middle-ground distance zone due to the height of the structure. The power pole creates a strong, vertical line that is simple and straight. The color of the power pole is dark brown.

The landforms in the background distance zone consist of higher slopes and rounded peaks, including Peavine Peak. Topography is moderately sloping, but is generally not excessively steep. The crest and summit of the highest slopes and peaks form a strong, flowing silhouette-

line against the backdrop of the sky. The colors of the landforms in the background distance zone are dull, low-chroma shades of light brown and light tan due to vegetation cover. Most vegetation cover in the background distance zone consists of cheatgrass and sparse low shrubs. Small groups of evergreen vegetation occur along the saddle between several peaks. These groups appear as irregular, contrasting forms that are low-chroma shades of dark gray and dark green in color. Texture is generally indistinguishable in the background distance zone. There are no visible structures in the background distance zone.

KOP 16 (Verdi Library Parking Lot – West)

KOP 16 is located near the northwest corner of the parking area for the Verdi Community Library in Verdi (**Figure 5-B**). The angle of view at KOP 16 is west-southwest towards Bridge Street, and is roughly aligned with the existing #106 and #114 overhead transmission lines next to the parking area.

The asphalt parking lot is the prominent element of the foreground distance zone and its form is simple, solid, and roughly trapezoid-shaped. The parking lot is gray and dark gray in color, and has a very fine, stippled texture that is subtle. There is a small pile of large boulders that protrudes into the parking area in the immediate foreground. Most of the boulders are roughly oval in shape, and varying shades of light gray and light brown in color.

A nearly flat, densely vegetated landform comprises the foreground distance zone north and south of the parking lot. The edge of the paved parking lot surface forms a soft line against the surrounding vegetation cover. The vegetation cover consists primarily of taller shrubs and shorter evergreen trees that are pale green, green, and low-chroma dark green in color. The shrubs have a globular-shaped form, as does the foliage of evergreen trees. There are several tall evergreen trees at the more distant range of the foreground distance zone. These trees have a conical-shaped form that is dark green in color.

There are many structures visible in the foreground distance zone. The most prominent structures include the power poles and conductors wires associated with the #106 and #114 overhead transmission lines and an overhead distribution line. The power poles create strong, vertical lines that are simple and straight. The color of the power poles is dark brown and brown. The cross-arm beams on the power poles used for the #106 and #114 overhead transmission lines form short, hard lines that are horizontal and simple. A tall, thin rod is attached to several of the power poles used for the distribution line. The rods are light gray in color, smooth-textured, and are much thinner than the power pole they are attached to. The conductor wires create very thin, weak lines that are straight and continuous between power poles. Wires are light gray in color, and have no apparent texture.

Other structures in the foreground distance zone include residences and accessory structures, street lamps and signs at the library parking lot, chain link fence, an electrical utility box, and a smaller receptacle container most likely for waste. This container and the electrical utility box have a roughly rectangular-shaped form, with short, hard lines that are vertical and horizontal. Both are constructed of metal and have a smooth texture. The receptacle container is dark brown in color, and casts a glare under certain light conditions. The electrical utility box is matte green in color. Residences and accessory structures have a block form, with short vertical lines formed by the edges of exterior walls. The edge of rooftops creates short, hard lines that are diagonal in direction. Residences and accessory structures are dark brown, light brown, gray, and white in color, and have no distinct texture. Street lamps and signs at the perimeter of the library parking lot have thin, linear forms. The street lamp posts and the fence posts form short, hard lines that are vertical. The vertical lines formed by street lamp posts are considerably taller than those formed by sign posts. Horizontal lines are formed by the light fixture on street lamps and by the signs mounted to the sign posts. Fence posts are varying shades of brown with no distinct texture. Street lamp posts and fixtures are light gray in color. Each street lamp post is mounted to a cylindrical-shaped concrete foundation that is very light gray in color.

Views of the landforms and structures that may occur in the middle-ground distance zone are obscured by evergreen foliage of taller trees located in the foreground distance zone. However, a dense coniferous forest located in the middle-ground distance zone is visible. The evergreen foliage creates a solid, strip-shaped form that is oriented horizontally across the span of the viewing angle. The foliage is very dark green in color and has no distinct texture. The tops of the individual trees in the forest create a jagged silhouette-line against the backdrop of the very low-chroma colors of the landforms and vegetation in the background distance zone.

The background distance zone is characterized by mountain peaks and ridges that rise to substantially higher elevations that the foreground and middle-ground distance zones. Topography is somewhat steep in most of the background distance zone, but there are also isolated areas of moderately steep slopes. The higher peaks and ridges in the background distance zone create a strong continuous line at the skyline. Peaks are rounded and only slightly higher than the surrounding ridgeline; thus, the line where the skyline is met is smooth and flowing. The colors of the landforms in the background distance zone are dull, low-chroma shades of gray. The colors of the vegetation in the background distance zone are dull, low-chroma shades of gray, green and dark green. The form and texture of vegetation are indistinguishable due to the distance separating it from KOP 16. Lines created by vegetation are also largely indistinguishable, but there are several evergreen trees that create a weak, irregular silhouette-line against the backdrop of the sky. There are no visible structures in the background distance zone. The summit of the slopes and hills form a strong, flowing silhouette-line against the backdrop of the sky. The color of the landforms in the background distance zone is due to the

vegetation cover on the slopes of the peaks and ridges. The colors include varying shades of gray and green, and all colors are dull and very low-chroma. Texture is generally indistinguishable in the background distance zone. There are no visible structures in the background distance zone.

KOP 17 (Verdi Library Parking Lot – East)

KOP 17 shares the same approximate location as KOP 16, and the angle of view is also roughly aligned with the existing #106 and #114 overhead transmission lines. However, the angle of view is towards the east, nearly opposite of the direction of the angle of view of KOP 16. The location of KOP 17 is shown on **Figure 5-B**.

The topography in the foreground distance zone is nearly flat to gently sloping and slopes south towards Sunrise Creek. The asphalt parking lot is the prominent element of the foreground distance zone and its form is simple, solid, and roughly trapezoid-shaped. The parking lot is gray and dark gray in color, and has a very fine, stippled texture that is subtle.

A nearly flat, densely vegetated landform comprises the foreground distance zone north of the parking lot. There is also an island area in the parking lot that is unpaved and vegetated. The edge of the paved parking lot surface forms a soft line where it meets surrounding vegetation cover. The vegetation cover consists primarily of taller shrubs that are pale green, green, and low-chroma dark green in color. The shrubs have a globular-shaped form with no distinct lines. There are several taller evergreen trees in the more distant ranges of the foreground distance zone. These trees have a conical-shaped form and are dark green in color. A very tall conifer tree is located in the island area of the library parking lot. The trunk of the tree creates a tall, thin vertical line that is broken by clumps of evergreen foliage. Large limbs of the tree create short, straight diagonal lines, and curvilinear lines.

There are many structures visible in the foreground distance zone. The most prominent structures include the power poles and conductor wires associated with the #106 and #114 overhead transmission lines and the Verdi Public Library structure. Power poles create strong, vertical lines that are simple and straight. The color of the power poles is dark brown and gray. The cross-arm beams on the power poles form short, hard lines that are near horizontal and simple. Brace beams on the power pole closest to KOP 17 creates thin diagonal lines that are straight and simple. The conductor wires create very thin, weak lines that are continuous and nearly straight between power poles. Wires are light gray in color, and have no apparent texture.

The library structure has a block form, with short vertical lines formed by the edges of exterior walls and short horizontal lines formed by the rooftop and foundation of the building. Windows create small, square-shaped forms on the larger, rectangular-shaped form of the exterior wall. The rooftop is dark gray in color and has no apparent texture. The exterior wall is mostly light

gray in color, but a narrow strip of darker gray color is evident along the base of the structure. Windows appears as dark gray to nearly black in color and have no distinct texture.

Other structures in the foreground distance zone include a small structure behind the library, street lamps and signs around the perimeter of the library parking lot, an electrical utility box, and a smaller receptacle container that is most likely for waste. This container and the electrical utility box have a roughly rectangular-shaped form, with short, hard lines that are vertical and horizontal. Both are constructed of metal and have a smooth texture. The receptacle container is dark brown in color, and casts a glare under certain light conditions. The electrical utility box is matte green in color. Street lamps and signs at the perimeter of the library parking lot have thin, linear forms. The street lamp posts and the fence posts form short, hard lines that are vertical. The vertical lines formed by street lamp posts are considerably taller than those formed by sign posts. Horizontal lines are formed by the light fixture on street lamps and by the signs mounted to the sign posts. Fence posts are varying shades of brown with no distinct texture. Street lamp posts and fixtures are light gray in color. Each street lamp post is mounted to a cylindrical-shaped concrete foundation that is very light gray in color. The small structure behind the library is block-shaped, light gray in color, and has no apparent texture. The top of the structure forms a short, hard line that is horizontal.

The landforms in the middle-ground distance zone consist of higher slopes and rounded peaks. Topography is moderately sloping, but is not excessively steep. The crest and summit of the highest slopes and peaks form a weak, flowing silhouette-line against the backdrop of the slightly higher peaks and ridges in the background distance zone. The colors of the landforms in the middle-ground distance zone are dull shades of brown and tan due to vegetation cover. Texture is generally indistinguishable in the middle-ground distance zone. There are no visible structures in the middle-ground distance zone.

The landforms in the background distance zone consist of higher slopes and rounded peaks that are very similar to those located in the middle-ground distance zone. Topography is moderately sloping, but is generally not excessively steep. The crest and summit of the highest slopes and peaks form a strong, flowing silhouette-line against the backdrop of the sky. The colors of the landforms in the background distance zone are dull, low-chroma shades of light brown and light tan due to vegetation cover. A small area of coniferous forest occurs on the highest peak. The forest appears as irregular, contrasting forms that are low-chroma shades of dark gray and dark green in color. Texture is generally indistinguishable in the background distance zone. There are no existing structures visible in the background distance zone of KOP 17.

2.5.4 Peavine/Poeville Alternative

Visual Character

To facilitate the inventory of landscape features and describe the existing visual character, the Peavine/Poeville Alternative study area was divided into four sub-areas: Bordertown sub-area, Central sub-area, Peavine Peak sub-area, and East Verdi sub-area.

The Bordertown sub-area corresponds with the portion of the study area containing the existing Bordertown Substation and the first approximately 2.0 miles of the Peavine/Poeville Alternative from the substation. The existing visual character within this sub-area is the same as described for the Bordertown sub-area of the Mitchell Alternative in **Section 2.5.1** of this Specialist Report.

The Central sub-area corresponds with the portion of the study area containing the next approximately 5.4-mile section of the Peavine/Poeville Alternative. The existing visual character within this sub-area is the same as described for the Central sub-area of the Mitchell Alternative in **Section 2.5.1** of this Specialist Report.

The Peavine Peak sub-area corresponds with the portion of the study area containing the next approximately 2.4-mile section of the Peavine/Poeville Alternative. The existing visual character within this sub-area is the same as described for the Peavine Peak sub-area of the Poeville Alternative in **Section 2.5.3** of this Specialist Report.

The East Verdi sub-area corresponds with the portion of the study area containing the existing California Substation and the last approximately 2.1 miles of the Peavine/Poeville Alternative before the substation. The existing visual character within this sub-area is the same as described for the East Verdi sub-area of the Poeville Alternative in **Section 2.5.3** of this Specialist Report.

Federal Visual Resource Management Areas

As shown on **Figure 5-A**, the VQOs that have been assigned to the NFS land that would be crossed by the Peavine/Poeville Alternative include Maximum Modification, Modification, and Retention. There is not any NFS land within the study area that has been assigned the Partial Retention or the Preservation VQO. However, there is NFS land without an assigned VQO that was transferred to the USFS from the BLM in 1988 under the Nevada Enhancement Act. All BLM-administered public lands within the study area are managed as VRM Class III (**Figure 5-A**). The acres of VQO and BLM VRM Class III that would be contained with the proposed ROW area for the Peavine/Poeville Alternative are summarized in **Table 10**.

Key Observation Points

The KOPs that have been selected for the Peavine/Poeville Alternative include KOP 7, as listed in **Table 11** for the Mitchell Alternative, and KOPs 15, 16, and 17, as listed in **Table 12** for the Poeville Alternative. The other KOPs listed in **Tables 7** and **8** are not applicable to the Peavine/Poeville Alternative. Please refer to **Section 2.5.1** for a description of the characteristic landscape of KOP 7. A description of the characteristic landscape of KOPs 15, 16, and 17 is provided in **Section 2.5.3** of this Specialist Report. The location of the KOPs is shown on **Figure 5-A**.

3.0 EFFECTS ANALYSIS

This section of the Specialist Report analyzes and discloses the potential effects that the proposed project would have on visual resources. The potential cumulative impacts of the proposed project are also discussed in this section of the Specialist Report.

3.1 ANALYSIS METHODOLOGY

The analysis of direct and indirect effects involved determining the magnitude of contrast that each alternative would have with the characteristic landscape of each KOP, and whether the contrast would be inconsistent with objectives of federal VRM areas. Computer-generated visual simulations of the proposed project in its operational phase were produced as an aid in visualizing the changes each action alternative would impose on the characteristic landscape at the KOPs from which an action alternative would be visible. The computer-general visual simulations are effectively the same photograph of the existing characteristic landscape taken from each KOP, only the proposed project and its associated changes on the landscape are also shown on the photographs. Accordingly, the visual simulations were reviewed to identify the form, line, color, and texture that characterizes the proposed project, and then this information was compared to the form, line, color, and texture of the characteristic landscape, as it currently exists. Comparison of the form, line, color, and texture was used to determine the magnitude of alteration an action alternative would have on the characteristic landscape. Changes in the size, amount, intensity, direction, pattern, and so forth were used as indicators in comparing the form, line, color, and texture, and quantify the contrast an action alternative would be expected to have. Once the degree of contrast and magnitude of alteration were determined for an action alternative, the effect of that action alternative was evaluated using the indicators listed in **Section 3.1.1** of this Specialist Report.

The photographs of the characteristic landscape viewed from each KOP are provided in **Appendix A**. The computer-generated visual simulations created to show the proposed transmission line that would be visible for each KOP are also provided in **Appendix A**.

In addition to preparing and evaluating the computer-generated visual simulations from each KOP, a viewshed analysis was also performed for each alternative (**Figures 6-9**) that displays the number of structures visible (either only partially or in their entirety) throughout the project area. The analysis was performed by using ESRI ArcMap 10.1 with the spatial analyst extension. The elevation data needed to perform the analysis was downloaded from the US Geological Survey National Elevation Dataset (http://ned.usgs.gov/Ned/faq.asp) and the resolution is 10 meters, the best available for the area, with a vertical accuracy of 2.44 meters (root mean square error). The average span distance used between each structure averaged 500 feet and the height used for each structure was 90 feet. The observer height - eye level used for the analysis was 4.5 feet.

The data presented in each viewshed analysis represents bare earth elevations with no vegetation (i.e. large pine trees) or existing features (i.e. houses) that could block and make the proposed structures not visible. Thus, the viewshed analysis is very conservative and the number of structures that the analysis shows as being visible (either only partially or in their entirety), is likely overestimated.

3.1.1 Effect Indicators

The following indicators were used to determine if an action alternative would have a potential effect on the visual resources within the study area:

- Loss of the visual quality and scenic attributes of the characteristic landscape at a KOP;
- Consistency with the goals and objectives of the existing VQOs assigned to the NFS land and VRM Class III designation assigned to BLM-administered public lands that would be crossed by an action alternative; and
- Consistency with the goals and objectives of the Forest Plan (USFS 1986) and the BLM PRMP and ROD (BLM 2007 & 2008).

3.1.2 Effect Intensity and Context

In accordance with NEPA requirements, an effect should be discussed in terms of context and in terms of intensity. In this Specialist Report, context refers to the location, type, or size of the area to be affected relative to each resource component. Intensity refers to the severity or level of magnitude of impact. The intensity of effects disclosed in this Specialist Report is defined as either "Major", "Moderate", "Minor", or "Negligible". In addition, the duration of effects can be "Temporary", "Short-term", or "Long-term". These terms are described in **Table 13**.

Table 13 Definition of Effect Intensity and Duration

Attribute of Effect		Description Relative to Recreation Resources
Magnitude	Negligible	No measurable or obvious changes on the existing characteristic landscape.
	Minor	Existing character of the landscape would be retained; alteration of the characteristic landscape may be seen, but would not attract the attention of the casual observer.
	Moderate	Existing character of the landscape would be partially retained; alteration of the characteristic landscape may attract the attention of the casual observer, but would remain visually subordinate to the characteristic landscape.
	Major	Existing character of the landscape would be substantially altered; alterations would be the focus of attention for most observers, and would dominate the characteristic landscape.
Duration	Temporary	Occurring during construction and maintenance activities
	Short-term	Less than 5 years
	Long-term	Greater than 5 years

The intensity and duration of a visual resource effect, regardless of the alternative, would be expected to vary depending on environmental conditions, such as weather, atmospheric conditions, and time of day. For example, snow cover creates a light, homogenous backdrop that may contrast more with project elements than bare soil and vegetation cover would without snow.

3.2 EFFECT-INDUCING ACTIVITIES BY ACTION ALTERNATIVE

Effects on visual resources would result from alterations of or additions to the characteristic landscape within the study area during construction of the proposed project, or during operation and maintenance of the proposed project. Because construction, operation, and maintenance of the proposed project would occur regardless of the potential implementation of any one of the action alternatives, the effect-inducing activities listed below would occur under all action alternatives.

The activities that would be expected to generate effects on visual resources during construction of the proposed project include:

- Creation of access roads, routes, or other such tracks for equipment and vehicles;
- Creation of temporary staging areas, wire-stringing sites, and construction areas at the sites of proposed power pole structures;
- Operation of construction equipment and vehicles; and
- Storage of project materials and supplies (e.g., poles, spools of conductor wire, etc.) within the study area.

Any number of these activities would also be expected during any potential future repair of the proposed project. However, when performed for repair purposes, the activities listed above would occur infrequently and would be short-term. Typically, repair activities would also occur at specific isolated locations within the ROW area or at either substation, depending on where repairs are necessary.

The activities that would be expected to generate effects on visual resources during operation and routine maintenance of the proposed project include:

- Management of vegetation cover within and adjacent to the proposed transmission alignment ROW; and
- Use of the proposed transmission line (i.e., power poles and overhead conductors) for the conduction of electrical current.

Use of the proposed transmission line for the conduction of electrical current is essentially the same as operation of the transmission line and would occur for the life of the project. The effects

on visual resources resulting from the use of the transmission line would be attributed to the visibility of the power poles and overhead conductors within the surrounding characteristic landscape, and how strongly they contrast with the landscape features.

3.3 DIRECT AND INDIRECT EFFECTS BY ALTERNATIVE

3.3.1 Mitchell Alternative

3.3.1.1 Visual Quality and Scenic Attribute Effects

Implementation of the Mitchell Alternative would result in the proposed transmission line following the Mitchell Alignment from the Bordertown Substation to the California Substation (**Figure 1**). Following this alignment, sections of the proposed transmission line would be visible during construction and operation from the following KOPs:

- KOP 1 (California Substation – South);
- KOP 2 (California Substation – West);
- KOP 3 (Henness Pass/Dog Valley Road);
- KOP 4 (Forest Boundary – West);
- KOP 5 (Forest Boundary); and
- KOP 7 (Forest Route 41192 – North).

The potential effects that the Mitchell Alternative would have during construction and during operation and maintenance of the proposed project at each of the KOPs are described below. The photograph of the existing characteristic landscape and the computer-generated visual simulation of the proposed project at each of the KOPs are provided in **Appendix A**. The location of all of KOPs is shown on **Figure 5-A**. The viewshed analysis for the Mitchell Alternative is shown on **Figure 6**.

KOP 1 (California Substation – South)

Construction

During construction of the proposed project, construction personnel and construction equipment and vehicles would be present and visible from KOP 1. The presence of construction equipment and personnel would introduce line, color, and texture elements to the existing characteristic landscape. The section of the proposed transmission that would be visible from KOP 1 is relatively short, and occur only in the foreground distance zone of the characteristic landscape. KOP 1 is located on the north side of Henness Pass/Dog Valley Road, which is a residential collector street that is travelled daily by motorists. Motorists' vehicles are operated and regularly visible in the foreground distance zone of KOP 1. The presence of vehicles in the existing characteristic landscape would lessen the contrast created by the presence of the workforce and equipment and vehicles during construction of the proposed project. Additionally, the section of the proposed transmission line visible from KOP 1 is relatively short and would not be expected

to require a lengthy construction period. Construction personnel and equipment would be present for a brief period of time before moving to areas not visible from KOP 1.

The proposed power pole structure closest to KOP 1 would be located on the shoulder of Henness Pass/Dog Valley Road. The proximity of the pole structure to the existing road would be expected to preclude the need for new access routes for its construction. Other proposed pole structures visible from KOP 1 would be expected to require only short access routes to be constructed from existing unpaved roads located near their locations. The addition of new roads, routes, or other tracks from project equipment and vehicles that are created for access to the project area would introduce linear, color, and texture elements to the foreground distance zone of the characteristic landscape. The presence of Henness Pass/Dog Valley Road and the aforementioned unpaved roads in the foreground distance zone would lessen the degree of contrast that new access roads or routes would have. Reclamation would further reduce the degree of contrast. Design features would be implemented to reduce the visual contrast associated with the visibility of the blockade structures that would be installed to prevent access/use of reclaimed roads. Design features applicable to visual resources are described in **Section 1.2.4** of this Specialist Report.

According to the visual simulation (**Appendix A**), approximately two proposed single-pole structures would be visible from KOP 1. Installation of the pole structures would require temporary construction-related surface disturbance around the base of each structure. Pole structures would be located in areas where shrub and sparse vegetation cover currently exists. This vegetation cover would be removed from the area where surface disturbance would occur at the base of each structure. Reclamation of the surface disturbance would be expected to immediately reduce the contrast associated with removal of the existing vegetation cover in these areas.

Operation and Maintenance

The visual simulation suggests that approximately two proposed power pole structures would be visible from KOP 1. All of the visible pole structures would be located in the foreground distance zone of the characteristic landscape. The proposed poles would replace existing, shorter poles used that are used for an overhead distribution line and telephone line. The proposed pole structures would be constructed with the conductors used for the existing overhead distribution line as an under-build.

The vertical lines created by the existing power poles used for the distribution line would be replaced by taller and slightly thicker vertical lines associated with the proposed power pole structures. The proposed power pole structures would be approximately 40 percent to 60 percent taller than the existing power pole structures that would be replaced. The color of the proposed

pole structures would be dark brown and matte. The darker shade of brown and the matte appearance of the proposed pole structures would make them less visible than the poles that they would replace when viewed against middle-ground vegetation.

The proposed overhead conductors would introduce six very thin, curvilinear lines to the foreground distance zone of the characteristic landscape. An additional thin, curvilinear line would be introduced from a shield wire that would span between the proposed pole structures. These lines would be gray in color and have no discernible texture. These lines would roughly parallel the existing thin curvilinear lines contributed to the landscape by the existing distribution line that would be attached to the proposed structures as an under-build. Because the proposed and existing conductors would be nearly identical, and the line elements associated with them would be roughly parallel and grouped, the proposed conductors would not introduce any substantial contrasting form, line, color, or texture elements to the characteristic landscape. The degree of contrast resulting from the addition of the proposed conductors and shield wire to the characteristic landscape would not be substantial.

The minimal degree of contrast that would result from operation and maintenance of the proposed project would not attract the attention of the casual observer. The proposed overhead conductors and the proposed power pole structures would repeat line, color, and texture elements found in the existing characteristic landscape. Implementation of the Mitchell Alternative would be expected to result in a negligible loss of the visual quality and scenic attributes of the existing characteristic landscape at KOP 1. The existing character of the landscape would be retained, and the effect that the Mitchell Alternative would have on visual resources would be negligible.

The foreground, middle-ground, and background distance zones of characteristic landscape visible from KOP 1 consist of private land that is not managed by the USFS or the BLM. The VMS and VRM systems are not used for management of visual resources on private land. Thus, VQOs and VRM classes have not been assigned to the characteristic landscape, and the Mitchell Alternative would not conflict with any existing VQOs or VRM Classes at KOP 1.

KOP 2 (California Substation – West)

Construction

The visual simulation of the proposed project prepared for KOP 2 suggests that an approximately 1,000-foot-long section of the proposed transmission line would be visible. The relatively short length of transmission line that would be constructed within the area visible from KOP 2 would limit the period which construction equipment and vehicles would be present and visible. KOP 2 is located on the south shoulder of Henness Pass/Dog Valley Road, which is a residential collector street that is travelled daily by motorists. Motorists' vehicles travelling on Henness Pass/Dog Valley Road, as well as other roads in the surrounding vicinity, routinely contribute

form, line, color, and texture elements to the characteristic landscape that are similar to those that would be introduced by project equipment during construction. Because project equipment and vehicles would be visible from KOP 2 only temporarily and briefly, and repeat form, line, color, and textures elements associated with vehicle use in the area, the degree of contrast that the equipment would have would be minimal and not substantial.

According to the visual simulation, approximately five proposed power pole structures would be visible from KOP 2. The proposed poles would replace existing poles that are used for an existing distribution power line. Installation of the pole structures would require temporary construction-related surface disturbance around the base of each structure. The surface disturbance at the base of each proposed structure would require the existing vegetation cover to be removed from the temporary disturbance area. The furthest proposed pole structure from KOP 2 would require several large conifer trees to be removed, while the other four proposed pole structures would require clearing of shrubs and sparse grasses. Removal of vegetation cover and disturbance of soils would introduce contrasting form, color, and texture elements. Following construction, temporary surface disturbance at all proposed pole structure locations would be reclaimed, which would include seeding the area. Reclamation of the surface disturbance would be expected to immediately reduce the contrast associated with removal of the existing shrubs and grasses in the area, but removal of the trees would be permanent and persist through operation of the proposed project.

The proposed power pole structures would be located on the shoulder of Henness Pass/Dog Valley Road. The proximity to an existing road would be expected to preclude the need for any new access roads or routes during construction. If any new access roads or routes are created they would introduce contrasting form, line, color, and texture elements to the landscape. Introduced elements would repeat the elements that existing Henness Pass/Dog Valley Road contributes to the characteristic landscape. Repetition of elements common to the characteristic landscape would reduce the degree of contrast associated with any new access roads and routes. Reclamation of access roads following construction would further reduce the degree of contrast. Design features would be implemented to reduce the visual contrast associated with the blockade structures that would be installed to prevent access or use of reclaimed roads. Design features applicable to visual resources are described in **Section 1.2.4** of this Specialist Report.

Operation and Maintenance

The visual simulation suggests that approximately five proposed power pole structures would be visible from KOP 2. All of the visible pole structures would be located in the foreground distance zone of the characteristic landscape. The proposed poles would replace existing, shorter poles that are used for an overhead distribution line and telephone line. The proposed pole

structures would be constructed with the conductors for the existing overhead distribution line as an under-build.

The vertical lines created by the existing power poles used for the distribution line would be replaced by taller and slightly thicker vertical lines associated with the proposed power pole structures. The proposed power pole structures would be approximately 25 percent to 50 percent taller than the existing power pole structures that would be replaced based on the visual simulation. The color of the proposed pole structures would be dark brown and matte. The darker shade of brown and the matte appearance of the proposed pole structures would make them less visible than the poles that they would replace when viewed against evergreen foliage in the foreground distance zone. However, when viewed against the light tan color of the vegetation cover in the middle-ground distance zone, the darker color causes the proposed pole structures to be more visible.

As previously mentioned, the visual simulation suggests that several existing conifer trees would be removed from the ROW area surrounding the proposed pole structure located furthest from KOP 2. The area visible from KOP 2 where conifer trees would be removed is adjacent to Henness Pass/Dog Valley Road and Sunrise Creek Road. Thus, the trees that would be removed in this area are located at the edge of forest cover, and their removal would not create the corridor-effect that would otherwise result from removal of trees within interior areas of forest cover. Removal of the trees from this area would, however, interrupt the vertical strip-shaped form created by the foliage on conifer trees. The light tan and light brown color, and the textures of the understory shrubs and grasses in the middle-ground distance zone would become more prevalent with the removal of trees. The magnitude of the contrast resulting from removal of the conifer trees from within the ROW surrounding the pole structure would not be substantial. There are currently openings in the forest canopy on either side of Henness Pass/Dog Valley Road that appear similar to those that would be created from removal of the trees. Additionally, the color and texture of understory shrubs and grasses in the middle-ground distance zone are visible in much of the characteristic landscape.

The proposed overhead conductors would introduce six very thin, curvilinear lines to the foreground distance zone of the characteristic landscape. An additional thin, curvilinear line would be introduced from a shield wire that would span between the proposed pole structures. These lines would be gray in color, and have no discernible texture. These lines would roughly parallel the existing thin curvilinear lines contributed to the landscape by the existing distribution line that would be attached to the proposed structures as an under-build. Because the proposed and existing conductors would be nearly identical, and the line elements associated with them would be roughly parallel and grouped, the proposed conductors would not introduce any substantial contrasting form, line, color, or texture elements to the characteristic landscape. The

degree of contrast resulting from the addition of the proposed conductors and shield wire to the characteristic landscape would not be substantial.

Although the operation and maintenance of the proposed project would introduce contrasting form, line, color, and texture elements, the existing character of the landscape would be retained. Implementation of the Mitchell Alternative would be expected to result in a negligible loss of the visual quality and scenic attributes of the existing characteristic landscape at KOP 2. The magnitude of contrast resulting from the Mitchell Alternative would be expected to have a negligible effect on visual resources at KOP 2.

The foreground, middle-ground, and background distance zone of characteristic landscape visible from KOP 2 consist of private land that is not managed by the USFS or the BLM. The VMS and VRM systems are not used for management of visual resources on private land. Accordingly, VQOs and VRM classes have not been assigned to the characteristic landscape of KOP 2. The Mitchell Alternative would not conflict with any existing VQOs or VRM Classes.

KOP 3 (Henness Pass/Dog Valley Road)

Construction

According to the visual simulation, only the uppermost portion of one proposed H-frame power pole structure and several hundred feet of conductors would be visible from KOP 3. Construction personnel and most construction equipment would likely not be visible from KOP 3 because they are substantially shorter than the proposed power pole structures. Temporary surface disturbance around the proposed pole site would not be visible because the landforms and vegetation cover in the foreground distance zone obstruct views of the lower portions of the structure. Likewise, views of any new roads or routes created for access during construction would be obstructed by foreground vegetation cover and landforms.

Operation and Maintenance

The landforms within the foreground distance zone of the characteristic landscape visible from KOP 3 greatly restrict the visibility of the proposed transmission line. As shown on the visual simulations, only the uppermost 10 to 20 feet of two proposed H-frame pole structures and several hundred feet of overhead conductors would be visible. These features of the proposed project would occur within the foreground distance zone, and adjacent to and parallel with an existing 120 kV overhead transmission line (i.e., #102 transmission line). The existence of the proposed project during operation would not be likely to attract the attention of casual observers because very little of the proposed project would be visible from KOP 3. The project features that would be visible would be located next to an existing transmission line that is similar in appearance and scale as the proposed transmission line.

The slight degree of contrast that would result from operation and maintenance of the proposed project would not attract the attention of the casual observer. The proposed overhead conductors and the proposed power pole structures would repeat line, color, and texture elements found in the existing characteristic landscape. Implementation of the Mitchell Alternative would be expected to result in a negligible loss of the visual quality and scenic attributes of the existing characteristic landscape at KOP 3. The existing character of the landscape would be retained and the effect that the Mitchell Alternative would have on visual resources would be negligible.

The foreground distance zone of the characteristic landscape visible from KOP 3 consists of NFS land that is designated as Maximum Modification VQO. The degree of contrast that would be expected to result from implementation of the Mitchell Alternative would not conflict with the management goals and objectives of the Maximum Modification VQO (**Table 7**).

KOP 4 (Forest Boundary – West)

Construction

The visual simulation of the proposed project from KOP 4 suggests that one proposed single-pole structure and approximately 100 to 200 feet of conductors would be visible from KOP 4. The relatively short length of transmission line that would be constructed within the area visible from KOP 4 would limit the period which construction equipment and vehicles would be present and visible. Additionally, KOP 4 is located on the south side of Henness Pass/Dog Valley Road and this road is travelled daily by motorists during all seasons except winter, although the number of trips per day is unknown. Regardless, motorists' vehicles are operated and routinely visible in the foreground distance zone of KOP 4 during most months of the year. The presence of vehicles in the existing characteristic landscape would lessen the contrast that the project construction equipment and vehicles would have with the existing landscape.

Installation of the power pole structure would require temporary construction-related surface disturbance around the base of the structure. There are several large conifer trees that would be removed for installation of the power pole structure, as well as several short shrubs and sparse grasses. Reclamation of the surface disturbance would be expected to immediately reduce the contrast associated with removal of the existing shrubs and grasses in the area, but removal of the trees would be permanent and persist through operation of the proposed project.

The addition of new roads, routes, or other tracks from project equipment and vehicles that are created for access to the project area visible from KOP 4 would introduce linear, color, and texture elements to foreground distance zone of the characteristic landscape. The introduced elements would have the greatest contrast in areas where vegetation cover currently exists. However, the presence of Henness Pass/Dog Valley Road in the foreground distance zone of the existing characteristic landscape would lessen the degree of contrast that new roads, routes, or

other equipment tracks used for access to the project area would have with the existing landscape. Reclamation of access routes and roads following construction would further reduce the degree of contrast. Design features would be implemented to reduce the visual contrast associated with the visibility of the blockade structures that would be installed to prevent access/use of reclaimed roads. Design features applicable to visual resources are described in **Section 1.2.4** of this Specialist Report.

Operation and Maintenance

The proposed power pole structure would introduce a bold, vertical line that is somewhat similar to vertical lines formed by the trunks of larger conifer trees in the characteristic landscape visible from KOP 4. However, the vertical lines formed by tree trunks are highly broken by foliage and limbs, and the vertical line from the power pole would be unbroken and continuous. The power pole also has a larger diameter than the trunks of the surrounding trees. The continuity and boldness of the line would create contrast, but the degree of the contrast would not be substantial. The degree of contrast would not be substantial because the color and texture of the proposed pole structure would be similar to the colors and some of the textures in the characteristic landscape.

A relatively short length of overhead conductors would be visible between KOP 4, the proposed power pole described above, and between the power pole and forest cover north of it. Based on the visual simulation, the total length of the overhead conductors that would be visible appears to be less than 200 feet. Visibility of the proposed overhead conductors would introduce straight, hard silhouette-lines against the backdrop of the sky. The silhouette-lines would be oriented in a nearly horizontal direction. Most of the existing lines visible in the characteristic landscape are vertical or not oriented in any particular direction. However, removal of the conifer trees surrounding the proposed power pole structure would enable views of the middle-ground distance zone. The landforms in the middle-ground distance zone consist of a single hillside, and the crest of the hillside would form a line that is also nearly horizontal, roughly parallel with the proposed conductors.

According to the visual simulation, existing forest cover would be removed from the ROW area associated with the section of proposed overhead conductors that would be visible north of the new power pole structure. The area visible from KOP 4, where forest cover would be removed, is adjacent to Henness Pass/Dog Valley Road and Sunrise Creek Road. Thus, the trees that would be removed in this area are located at the edge of forest cover and their removal would not create the corridor-effect that would otherwise result from removal of trees within interior areas of forest cover. Removal of the forest cover in this area would, however, reduce the number of individual tree trunks that are visible, and thus the vertical line elements that are visible. The light tan and light brown color, and the textures of the understory shrubs and grasses would

become more prevalent with the existing forest cover removed from the ROW area. The magnitude of the contrast resulting from removal of the forest cover within the ROW area would not be substantial. There are currently openings in the forest canopy on either side of Henness Pass/Dog Valley Road that the simulated conditions would resemble. Additionally, the color and texture of understory shrubs and grasses are visible in many areas of the existing characteristic landscape.

A relatively short section of conductors for the existing #102 transmission line would become visible from KOP 4 as a result of removal of the forest cover within the proposed ROW area. The conductors made visible from removal of the forest would introduce thin, nearly horizontal lines to the foreground distance zone of the characteristic landscape. The color of the lines would be faint gray and have no discernible texture. The lines would be viewed against the backdrop of evergreen foliage associated with forest cover. The color of the lines blend well with the foliage, and when combined with the thinness of the lines, contrast would be minimal.

While the proposed project would introduce contrasting form, line, color, and texture elements to the characteristic landscape, loss of the visual quality and scenic attributes of the landscape would be negligible. The characteristic landscape contains form, line, color, and texture elements that are similar to those that would be introduced, and the degree of contrast that would result from the Mitchell Alternative would be reduced. The magnitude of contrast resulting from operation and maintenance activities would be expected to have a minor effect on visual resources at KOP 4.

The foreground distance zone consists of private land and NFS land. The NFS land is designated as Maximum Modification VQO. The minor effects that would be expected from operation and maintenance activities as result of implementation of the Mitchell Alternative would be consistent with management goals and objectives of the Maximum Modification VQO (**Table 7**).

KOP 5 (Forest Boundary)

Construction

During construction of the proposed project, construction equipment and vehicles and construction supplies would be visible from KOP 5. The visibility of these things would introduce line, color, and texture elements to foreground and middle-ground distance zones of the existing characteristic landscape during construction. The visual simulation of the proposed project prepared for KOP 5 suggests that an approximately 1,500-foot-long section of the proposed transmission line would be visible. The relatively short length of transmission line that would be constructed within the area visible from KOP 5 would limit the period which construction equipment and vehicles would be present and visible. KOP 5 is located on the shoulder of Henness Pass/Dog Valley Road which is travelled by visitors to NFS land in the area

daily during all seasons of the year except winter. Visitors' vehicles travelling on the road routinely contribute form, line, color, and texture elements to the characteristic landscape that are similar to those that would be introduced by project equipment during construction. The degree of contrast that the equipment would have would be minimal because project equipment and vehicles would be visible from KOP 5 only temporarily and briefly, and would repeat form, line, color, and textures elements associated with existing vehicle use.

According to the visual simulation, approximately two proposed power pole structures would be visible from KOP 5. Installation of the pole structures would require temporary construction-related surface disturbance around the base of each structure. The surface disturbance at the base of each proposed structure would require the existing vegetation cover to be removed from the temporary disturbance area. The proposed pole structures visible from KOP 5 are located in vegetation cover characterized by shrubs and low grasses. Removal of vegetation cover and disturbance of soils would introduce contrasting form, color, and texture elements. Following construction, temporary surface disturbance at all proposed pole structure locations would be reclaimed, which would include seeding the area. Reclamation of the surface disturbance would be expected to immediately reduce the contrast associated with removal of the existing vegetation cover and disturbance of soils.

Any new roads, routes, or other tracks created for access during construction would introduce contrasting form, line, color and texture elements to the foreground and middle-ground distance zones of the characteristic landscape. The introduced elements would have the greatest contrast in areas where vegetation cover currently exists. Reclamation of access routes and roads would further reduce the degree of contrast. Mitigation measures would be employed to reduce the visual contrast associated with the visibility of the blockade structures that would be installed to prevent access/use of reclaimed roads. Recommended mitigation measures are described in **Section 4.1** of this Specialist Report.

Operation and Maintenance

The visual simulation suggests that approximately two proposed H-frame power pole structures would be visible in the middle-ground distance zone of the characteristic landscape. The proposed power pole structures would introduce tall vertical lines that are bold and dark brown in color. The cross-arm on the pole structures would introduce thin but bold horizontal lines that are also dark brown in color. The H-frame pole braces would introduce diagonal lines that are thin and dark brown in color. The proposed power poles would be located next to the existing #102 transmission line, which is also constructed with H-frame power pole structures. These structures contribute vertical, horizontal and diagonal lines that are nearly identical to those that would be introduced by the proposed pole structures. Conifer trees in the foreground distance zone also contribute tall vertical lines to the characteristic landscape. Thus, the contrast that the

proposed power poles would have would be minimal because similar lines and colors are visible in the characteristic landscape.

The proposed overhead conductors would introduce three pairs of very thin, curvilinear lines to middle-ground and foreground distance zones of the characteristic landscape. Two additional very thin curvilinear lines would be introduced from shield wires that would span between the tops of the proposed pole structures. These lines would roughly parallel the existing thin curvilinear lines contributed to the landscape by the existing #102 transmission line. Because the proposed conductors and the existing #102 transmission line conductors would be nearly identical, and roughly parallel with one another, the proposed conductors would not introduce any substantial contrasting form, line, color, or texture elements to the characteristic landscape. The degree of contrast resulting from the addition of the proposed conductors and shield wire to the characteristic landscape would not be substantial.

The coniferous forest vegetation in the foreground distance zone would be cleared from the ROW area. Removal of the forest vegetation would create an approximately 80- to 90-foot-wide corridor through the evergreen foliage of the forest canopy. The effect of the corridor would be a band line that separates the foreground distance zone in two. Removal of the trees would also reduce the number of vertical lines and forms in the foreground distance zone, and expose much more of the landform and vegetation cover in the middle-ground distance zone to view. Vegetation cover in the middle-ground distance zone is light tan, which distinctly different that the dark brown and green colors found in the foreground distance zone. The existing #102 transmission line is currently not visible from KOP 5, but would be so after removal of the forest vegetation cover. Visibility of the #102 line would expose vertical, horizontal, and diagonal lines contributed by pole structures, and curvilinear lines contributed by overhead conductors.

Although the operation and maintenance of the proposed project would introduce contrasting form, line, color, and texture elements, the existing character of the landscape would be retained. Implementation of the Mitchell Alternative would be expected to result in a minimal loss of the visual quality and scenic attributes of the characteristic landscape at KOP 5. The degree of contrast resulting from the Mitchell Alternative would be expected to have a minor effect on visual resources at KOP 5.

The foreground and middle-ground distance zones of the characteristic landscape visible from KOP 5 consists of NFS land that is designated as Maximum Modification VQO. The degree of contrast that would be expected to result from implementation of the Mitchell Alternative would not conflict with the management goals and objectives of the Maximum Modification VQO (**Table 7**).

KOP 7 (Forest Route 41192 – North)

Construction

The visual simulation of the proposed project from KOP 7 suggests that an approximately one-mile-long section of the proposed transmission line would be visible from KOP 7. The relatively short length of transmission line that would be constructed within the area visible from KOP 7 would limit the period which construction equipment and vehicles would be present and visible. Additionally, KOP 7 is located at the intersection of Forest Route 41192 and an unnamed road in Long Valley. Motorized travel on the sections of these roads visible from KOP 7 is permissible during all seasons of year, although the number of trips per day is unknown. Regardless, motorists' vehicles are operated and routinely visible in the foreground distance zone of the characteristic landscape during most months of the year. The presence of vehicles in the existing characteristic landscape would lessen the contrast that the project equipment and vehicles would have during construction.

The addition of new roads, routes, or other tracks from project equipment and vehicles that are created for access to the project area visible from KOP 7 would introduce linear, color, and texture elements to foreground distance zone of the characteristic landscape. The introduced elements would have the greatest contrast in areas where vegetation cover currently exists. The presence of Forest Route 41192 and the unnamed road it intersects in the foreground distance zone of the characteristic landscape would lessen the degree of contrast that new roads, routes, or other equipment tracks used for access to the project area would have. Reclamation of access routes and roads following construction would further reduce the degree of contrast. Design features would be implemented to reduce the visual contrast associated with the visibility of the blockade structures that would be installed to prevent access/use of reclaimed roads. Design features applicable to visual resources are described in **Section 1.2.4** of this Specialist Report.

According to the visual simulation, approximately seven proposed H-frame pole structures would be visible from KOP 7. Installation of the pole structures would require temporary construction-related surface disturbance around the base of each structure. Pole structures would be located in areas where shrub and sparse vegetation cover currently exists. This vegetation cover would be removed from the area where surface disturbance would occur at the base of each structure. Reclamation of the surface disturbance would be expected to immediately reduce the contrast associated with removal of the existing vegetation cover in these areas.

Operation and Maintenance

The visual simulation suggests that approximately seven proposed power pole structures would be visible from KOP 7. All of the visible pole structures would be located in the foreground distance zone of the characteristic landscape. The proposed power pole structures would introduce thin, simple vertical lines that are dark brown or dark gray in color. As H-frame pole

structures, the lines they introduce would occur as a parallel pair at the site where each proposed power pole would be located. The texture of the proposed power poles would not be discernible from KOP 7.

There are several existing power pole structures visible in the foreground distance zone of the characteristic landscape that are dark brown and dark gray in color. These structures contribute thin, simple vertical lines that are very similar to those that would be introduced by the proposed power pole structures. The proposed pole structures would introduce lines as parallel pairs, which would create some contrast. However, because the introduced lines and existing lines resulting from pole structures would be so similar, the degree of contrast would not be substantial.

Based on the visual simulation, new overhead conductors would not be visible beyond the first two proposed power pole structures closest to KOP 7. Visibility of the proposed overhead conductors would introduce straight, very thin silhouette-lines against the backdrop of the sky and landforms in the middle-ground distance zone. The silhouette-lines would be oriented in a nearly horizontal direction. The overhead conductors would span low shrubs and sparse grasses, and not require a corridor to be cleared through forest vegetation.

There are existing overhead conductors visible in the foreground distance zone of the characteristic landscape, specifically the area where proposed conductors would be visible from KOP 7. The existing conductors contribute nearly horizontal lines that are almost identical to those that would be introduced by the proposed conductors. Additionally, the horizontal lines introduced by the proposed conductors would roughly parallel the distinct horizontal line formed where the landforms in the foreground and middle-ground distance zones meet. The degree of contrast created by the proposed overhead conductors would not be substantial because of similar line, color, and texture elements in the existing characteristic landscape.

The minimal degree of contrast that would result from operation and maintenance of the proposed project would not attract the attention of the casual observer. The proposed overhead conductors and the proposed power pole structures would repeat line, color, and texture elements found in the existing characteristic landscape. Implementation of the Mitchell Alternative would be expected to result in a minimal loss of the visual quality and scenic attributes of the existing characteristic landscape at KOP 7. The existing character of the landscape would be retained and the impact on visual resources would be minor.

The foreground distance zone of characteristic landscape visible from KOP 7 consists primarily of private land that is not managed by the USFS. The VRM system is not used for management

of visual resources in the foreground distance zone and VQOs have not been assigned. Accordingly, the Mitchell Alternative would not conflict with existing VQOs at KOP 7.

3.3.1.2 Consistency with Federal Visual Resource Management Areas

The VQOs that have been designated for the NFS land that would be crossed by the Mitchell Alternative include Maximum Modification, Partial Retention, and Retention (**Figure 5-A**). The BLM-administered public lands that would be crossed by the Mitchell Alternative are designated as VRM Class III. The proposed improvements at the Bordertown Substation would also occur on BLM-administered public lands that are designated as VRM Class III.

The existing #102 transmission line crosses the area of Maximum Modification VQO located in California that would be crossed by the Mitchell Alternative. The proposed transmission line would be located adjacent to and parallel with the existing transmission line. The elements that would be introduced by the proposed project would repeat those common to the characteristic landscape as a result of the existing transmission line. The corridor-shaped form element that would be introduced by removal of forest cover from the ROW area for the proposed transmission line would be very similar to the corridor-shaped form associated with the removal of forest cover that has occurred within the ROW area for the #102 transmission line. It would also be similar to the form element associated with an existing ROW for a buried gas pipeline near the #102 transmission line from which forest cover has also been removed. Repetition of elements common to the characteristic landscape would reduce the degree of contrast. The proposed project would not dominate the view of the casual observer.

The areas designated as Maximum Modification VQO that are located in Nevada and would be crossed by the Mitchell Alternative do not contain any existing overhead transmission lines or any other overhead utility lines. When the proposed transmission line is viewed in the foreground distance zone, the vertical lines associated with the proposed pole structures would repeat vertical lines associated with the trunks of conifer trees in the Maximum Modification VQO areas. Existing unpaved roads and trails have created corridor-like clearings through the forest cover. The removal of forest cover from the proposed ROW area would repeat elements associated with the removal of the forest cover from existing roads and trails. The section of the proposed transmission line located within these areas would be likely to attract the attention of the casual observer. However, because introduced elements would repeat elements that are found in the characteristic landscape of these areas, the proposed project would not be expected to dominate the view. Thus, implementation of the Mitchell Alternative would be consistent with the objectives of the Maximum Modification VQO (**Table 7**).

Two areas of NFS land designated as Partial Retention VQO would be crossed by the Mitchell Alternative. Both of the areas are located in California, along the section of the proposed

transmission line alignment between the state line and Henness Pass/Dog Valley Road, north of the California Substation in Verdi, Nevada (**Figure 5-A**). Neither area contains any existing power lines or other constructed structures that would contribute line, color, and texture elements that are similar to the proposed project. Vegetation cover within both areas consists almost entirely of conifer forest. The vertical form and line elements that would be introduced by the proposed power pole structures would repeat the vertical line and form elements that the trunks of the conifer trees contribute to characteristic landscape. The dark brown color and matte appearance of the proposed pole structures would be similar to the color of the tree trunks. Removal of the forest cover from within the ROW area for the alignment would create a contrasting form element with a corridor-like shape. However, there are existing unpaved roads and trails in the area that resulted in linear clearings of forest cover. Removal of the forest cover for these roads and trails contribute form elements with a corridor-like shape that are similar to those that would be created by the proposed project. Considering that linear clearings through the forest exist in this area, and that the vertical forms and lines, and brown colors that would be introduced by the power pole structures would be similar to those of existing tree trunks, the proposed project would be visually subordinate to the characteristic landscape. The Mitchell Alternative would be consistent with the goals and objectives of the Partial Retention VQO.

An approximately 0.5-mile section of the proposed transmission line would cross NFS land that has been designated as Retention VQO. The objectives of the Retention VQO state that activities and actions should not be visually evident and may only repeat form, line, color, and texture which occur frequently in the characteristic landscape (**Table 7**). The area of Retention VQO that would be crossed by the Mitchell Alternative does not contain any existing power lines or other constructed features that contribute elements that appear similar to those that would be introduced by the proposed project. However, the existing Alturas 345 kV transmission line is located approximately 0.5 mile north of the Retention VQO area and would be within sight of the section of the proposed transmission line that would cross the area. The Cor-Ten steel poles that would be used for the proposed transmission line would weather and rust to a dark brown, matte color that would appear essentially the same color of the pole structures used for the Alturas 345 kV transmission line. The dark brown color would also blend with natural colors found in the surrounding vegetation cover of the characteristic landscape. The thin, vertical line and form elements of the proposed poles structures would repeat the line and form elements of the existing Alturas 345 kV transmission line pole structures. Additionally, implementation of design features (see **Section 1.2.4**) would minimize the number of new pole structures constructed in the Retention VQO area because pole span distance would be maximized. Implementation of the Mitchell Alternative would be consistent with objectives of the Retention VQO.

The BLM VRM Class III objectives are to partially retain the existing character of the landscape. Activities in areas of VRM Class III may attract attention but should not dominate the view of the casual observer, and changes should repeat basic elements found in the predominant natural features of the characteristic landscape (**Table 7**).

The proposed transmission line would be located adjacent to and roughly parallel with the existing Alturas 345 kV transmission line where the Mitchell Alternative would cross the BLM VRM Class III area (**Figure 5-A**). The Alturas 345 kV transmission line contributes form, line, color, and texture elements to the characteristic landscape that would be repeated by the proposed project during operation and maintenance. Because the proposed transmission line would repeat elements found in the characteristic landscape, the resulting degree of contrast would be minimal and would not dominate the view of the casual observer. Any roads or routes or other clearings created during construction of the proposed project would introduce elements that repeat those found in the characteristic landscape from existing unpaved roads that cross the BLM VRM Class III area. Improvements to the Bordertown Substation would repeat elements that currently exist at the substation and would not attract the attention of casual observers. Implementation of the Mitchell Alternative would be consistent VRM Class III objectives.

3.3.1.3 Consistency with Land and Resource Management Plans

The Mitchell Alternative is consistent and compliant with the Forest Plan (USFS 1986) and the BLM PRMP (2007) and ROD (2008). Implementation of the Mitchell Alternative would not require an amendment of either of the aforementioned plans or ROD.

3.3.2 Peavine Alternative

3.3.2.1 Visual Quality and Scenic Attribute Effects

Implementation of the Peavine Alternative would result in the proposed transmission line following the Peavine Alignment from the Bordertown Substation to the California Substation (**Figure 1**). Following this alignment, sections of the proposed transmission line would be visible during construction and operation from the following KOPs:

- KOP 1 (California Substation – South);
- KOP 2 (California Substation – West);
- KOP 3 (Henness Pass/Dog Valley Road);
- KOP 4 (Forest Boundary – West);
- KOP 5 (Forest Boundary); and
- KOP 7 (Forest Route 41192 – North).

The potential effects that the Peavine Alternative would have during construction and during operation and maintenance of the proposed project at each of the KOPs are described below.

Photographs of the existing characteristic landscape at each KOP are provided in **Appendix A**. The computer-generated visual simulation of the proposed project prepared for each of the KOPs is also provided in **Appendix A**. The location of all of KOPs is shown on **Figure 5-A**. The viewshed analysis for the Peavine Alternative is shown on **Figure 7**.

KOPs 1-7

The section of the Peavine Alternative that would be visible from KOPs 1-5 and 7 is identical to the section of the Mitchell Alternative that would also be visible from these KOPs. Thus, the proposed transmission line would appear identical from each of these KOPs regardless of the potential implementation of this alternative or the Mitchell Alternative. Because the proposed transmission line would appear identical, the visual simulation prepared for these KOPs are applicable to both the Mitchell Alternative and the Peavine Alternative. The visual contrasts and effects that the Peavine Alternative would have on the characteristic landscape of KOPs 1-5 and 7 are the same as those that would result from the Mitchell Alternative. These contrasts and effects are described in **Section 3.3.1.1** of this Specialist Report.

3.3.2.2 Consistency with Federal Visual Resource Management Areas

The VQOs that have been assigned to the NFS land that would be crossed by the Peavine Alternative include Maximum Modification, Modification, Partial Retention, and Retention (**Figure 5-A**). The BLM-administered public lands that would be crossed by the Peavine Alternative are designated as VRM Class III. The proposed improvements at the Bordertown Substation would also occur on BLM-administered public lands that are designated as VRM Class III.

The proposed power pole structures would introduce tall, vertical lines with smooth to indistinct textures to these areas. The proposed overhead conductors would introduce weak, curvilinear lines with no distinct texture that are gray in color. Removal of forest cover from within the proposed ROW area would introduce contrasting form, line, color, and texture elements as well. The contrast created by these introduced elements would be consistent with the objectives of the Maximum Modification and Modification VQOs, as well as the VRM Class III objectives. Most of the NFS land that would be crossed where Maximum Modification and Modification VQOs occur contains similar form, line, color, and texture elements as those that would be introduced by the proposed project.

The area designated as Partial Retention VQO that would be crossed is located west of and adjacent to Dog Creek, north of Verdi, Nevada (**Figure 5-A**). The area does not contain any existing power lines or other constructed structures that would contribute line, color, and texture elements that are similar to the proposed project. However, there are existing overhead utility lines within view of some locations within this area that contribute elements to the characteristic

landscape that are similar to the elements that would be introduced by the proposed project. Vegetation cover within this area consists almost entirely of conifer forest. The vertical form and line elements that would be introduced by the proposed power pole structures would repeat the vertical line and form elements that the trunks of the conifer trees contribute to characteristic landscape. The dark brown color and matte appearance of the proposed pole structures would be similar to the color of the tree trunks. Removal of the forest cover from within the ROW area for the alignment would create a contrasting form element with a corridor-like shape. However, there are existing unpaved roads and trails in the area that resulted in linear clearings of forest cover. Removal of the forest cover for these roads and trails contribute form elements with a corridor-like shape that are similar to those that would be created by the proposed project. Considering that linear clearings through the forest exist in this area, and that the vertical forms and lines, and brown colors that would be introduced by the power pole structures would be similar to those of existing tree trunks and power poles within view, the proposed project would be visually subordinate to the characteristic landscape. The Peavine Alternative would be consistent with the goals and objectives of the Partial Retention VQO.

An approximately 0.5-mile section of the proposed transmission line would cross NFS land that has been designated as Retention VQO. The objectives of the Retention VQO state that activities and actions should not be visually evident and may only repeat form, line, color, and texture which occur frequently in the characteristic landscape (**Table 7**). The area of Retention VQO that would be crossed by the Mitchell Alternative does not contain any existing power lines or other constructed features that contribute elements that appear similar to those that would be introduced by the proposed project. However, the existing Alturas 345 kV transmission line is located approximately 0.5 mile north of the Retention VQO area and would be within sight of the section of the proposed transmission line that would cross the area. The Cor-Ten steel poles that would be used for the proposed transmission line would weather and rust to a dark brown, matte color that would appear essentially the same color of the pole structures used for the Alturas 345 kV transmission line. The dark brown color would also blend with natural colors found in the surrounding vegetation cover of the characteristic landscape. The thin, vertical line and form elements of the proposed poles structures would repeat the line and form elements of the existing Alturas 345 kV transmission line pole structures. Additionally, implementation of design features (see **Section 1.2.4**) would minimize the number of new pole structures constructed in the Retention VQO area because pole span distance would be maximized. Implementation of the Peavine Alternative would be consistent with objectives of the Retention VQO.

3.3.2.3 Consistency with Land and Resource Management Plans

The Peavine Alternative is consistent and compliant with the Forest Plan (USFS 1986) and the BLM PRMP (2007) and ROD (2008). Implementation of the Peavine Alternative would not require an amendment of either of the aforementioned plans or ROD.

3.3.3 Poeville Alternative

3.3.3.1 Visual Quality and Scenic Attribute Effects

Implementation of the Poeville Alternative would result in the proposed transmission line following the Poeville Alignment from the Bordertown Substation to the California Substation (**Figure 1**). Following this alignment, sections of the proposed transmission line would be visible during construction and operation from the following KOPs:

- KOP 9 (Peavine Ranch);
- KOP 10 (Peavine Ranch – Southwest);
- KOP 11 (Peavine Road);
- KOP 12 (Stead Trailhead);
- KOP 13 (Trail Drive – East);
- KOP 14 (Trail Drive – West);
- KOP 15 (Truckee River Bridge);
- KOP 16 (Verdi Library Parking Lot - West); and
- KOP 17 (Verdi Library Parking Lot – East).

The potential effects that the Poeville Alternative would have during construction and during operation and maintenance of the proposed project at each of the KOPs are described below. Photographs of the existing characteristic landscape at each KOP are provided in **Appendix A**. The computer-generated visual simulation of the proposed project prepared for each KOP is also provided in **Appendix A**. The location of all of KOPs is shown on **Figure 5-A**. The viewshed analysis for the Poeville Alternative is shown on **Figure 8**.

<u>KOP 9 (Peavine Ranch)</u>

Construction

During construction of the proposed project, construction equipment and vehicles and construction supplies would be visible from KOP 9. The visibility of these construction-related items would introduce line, color, and texture elements to the foreground distance zone of the existing characteristic landscape during construction. The visual simulation of the proposed project from KOP 9 suggests that approximately two proposed power pole structures would be visible in the foreground distance zone of the characteristic landscape. The relatively short length of transmission line that would be constructed within the area visible from KOP 9 would limit the period which construction equipment and vehicles would be present and visible. KOP 9 is

located on the shoulder of North Virginia Street, which is an existing unpaved road adjacent to U.S. Highway 395. Routine motorized travel on North Virginia Street and the section of U.S. Highway 395 visible from KOP 9 is permissible and would lessen the contrast that the project equipment and vehicles would have during construction.

The two proposed power pole structures that would be visible from KOP 9 would replace existing pole structures that are currently used for a distribution power line. Installation of the proposed power pole structures would require temporary construction-related surface disturbance around the base of each structure. The shrub and sparse vegetation cover that currently exists in the area where the base of the proposed structures would be located would be removed during construction. Removal of the vegetation cover would expose soils, which would consequentially introduce contrasting color and texture elements. An irregular shaped form would also be introduced by the absence of vegetation viewed beside vegetation cover otherwise undisturbed during construction. Reclamation of the surface disturbance, which would include seeding the disturbance areas, would be expected to immediately reduce the contrast associated with temporary construction disturbance.

It is anticipated that the existing North Virginia Street would be used for access during construction of the segment of the proposed power line visible from KOP 9. However, if new roads, routes, or other equipment tracks are created for access, the basic design elements of line, color, and texture would be added to the foreground distance zone of the characteristic landscape. The introduced elements would have the greatest contrast in areas where vegetation cover currently exists. The visibility of the existing and unpaved North Virginia Street, as well as U.S. Highway 395 in the foreground distance zone of the characteristic landscape would lessen the degree of contrast that any roads and routes created for construction access would have with the existing landscape. Reclamation of access routes and roads following construction would further reduce the degree of contrast. Design features would be implemented to reduce the visual contrast associated with the blockade structures that would be installed to prevent access/use of reclaimed roads if any temporary new access roads are required. Design features applicable to visual resources are described in **Section 1.2.4** of this Specialist Report.

The degree of contrast that the proposed project would have with the characteristic landscape at KOP 9 during construction would be negligible because contrasting elements would be temporarily visible, and would repeat elements associated with the use of existing roads visible in the characteristic landscape.

Operation and Maintenance

The visual simulation suggests that two proposed power pole structures would be visible from KOP 9. Both of the pole structures would be located in the foreground distance zone of the

characteristic landscape. The proposed poles would replace existing, shorter poles that are currently used for an overhead distribution line and telephone line. The proposed pole structures would be constructed with the conductors for the existing overhead distribution line as an under-build. The telephone line would also likely be attached to the proposed poles as an under-build.

The vertical lines created by the existing power poles used for the distribution line would be replaced by taller and slightly thicker vertical lines associated with the proposed structures. Based on the visual simulation, it is estimated that the proposed structures would be approximately 20 percent to 40 percent taller than the existing power pole structures that would be replaced. The color of the proposed pole structures would be matte brown, which would be darker than the color of the existing power poles. The matte appearance of the proposed structures would make them more readily visible than the existing poles that would be replaced. The vertical lines associated with the proposed pole structures would be bold and distinct because their matte brown color would contrast against the light hues of green, tan, brown that characterize vegetation cover in the middle-ground distance zone. Additionally, because the proposed power structures would be taller, a greater length of the pole would be viewed against the backdrop of the sky, which would also increase contrast.

The insulators that would connect the overhead conductors to the proposed power pole structures are substantially larger than the existing conductors used to connect the distribution line to the existing power poles that would be replaced. The proposed insulators would introduce small, rhomboid-shaped forms that appear dark gray in color. These insulators would be viewed against the backdrop of the sky, and thus their form would appear bold.

In addition to existing power pole structures that would be replaced, several existing power pole structures used for the Alturas 345 kV transmission line are also visible in the foreground distance zone. The color of the power pole structures associated with the Alturas 345 kV transmission line is very similar to the color that the proposed structures would be. The Alturas 345 kV transmission line power poles are almost twice as tall as the proposed structures, which would reduce the degree of contrast resulting from the addition of the proposed structures to the characteristic landscape. The cross-arms on the Alturas 345 kV transmission line power poles create thin, short form elements that are similar to those that would be introduced by the insulators on the proposed power pole structures.

The overhead conductors that would span between the proposed power pole structures would introduce six new curvilinear lines that are very thin, continuous, and roughly parallel with existing conductor wires in the foreground distance zone. An additional curvilinear line would be introduced by a shield wire that would also span between the proposed power pole structures. The curvilinear lines would be viewed against the backdrop of sky and the vegetation and

structures in the middle-ground distance zone. The dark color of the overhead conductors viewed against the backdrop of the sky would further increase the contrast of the curvilinear lines. However, the proposed overhead conductors would have a minimal degree of contrast due to the presence of similar line, color, and texture elements in the foreground distance zone.

Most of the elements that would be introduced during operation and maintenance of the proposed project would repeat form, line, color, and texture elements that are common to the characteristic landscape of KOP 9. The repetition of elements common to the characteristic landscape would reduce the degree of contrast that the proposed project would have. Although the proposed project may increase the size and amount of some elements common to the characteristic landscape, the increase would be minimal and visually subordinate. The proposed project would not be expected to dominate the view of casual observers. Loss of the visual quality and scenic attributes of the characteristic landscape at KOP 9 would be minimal. Thus, implementation of the Poeville Alternative would be expected to have a minor effect on visual resources at KOP 9.

The foreground distance zone of the characteristic landscape at KOP 9 that would be crossed by the Poeville Alternative consists of private land that is not managed by the USFS. Middle-ground and background distance zones also consist of private land. There are no VQOs assigned to these areas because the VRM system is not used for the management of visual resources on private land. Thus, the Poeville Alternative would not be inconsistent with any VQOs at KOP 9.

KOP 10 (Peavine Ranch – Southwest)

Construction

During construction, equipment and vehicles and construction materials and hardware would be visible in the foreground distance zone of the characteristic landscape of KOP 10. Project equipment, vehicles, and materials and hardware would be visible from KOP 10 only during construction of the segment of the Poeville Alternative that is visible from KOP 10. According to the visual simulation, portions of approximately four proposed power pole structures would be visible from KOP 10. The relatively few number of poles that would be constructed within view of KOP 10 would reduce the period which construction equipment and vehicles and construction materials and hardware would be present and visible.

North Virginia Street is visible in the foreground distance zone of the characteristic landscape of KOP 10. Elements that would be introduced by construction equipment, vehicles, materials, and hardware would repeat elements associated with vehicles that regularly travel on the road currently. The repetition of elements found within the characteristic landscape would reduce the degree of contrast that project equipment, vehicles, materials and hardware would have during construction.

The four proposed power pole structures that would be visible from KOP 10 would replace existing pole structures that are currently used for a distribution power line. Installation of the proposed power pole structures would require temporary construction-related surface disturbance around the base of each structure. The shrub and sparse vegetation cover that currently exists in the area where the base of the proposed structures would be located would be removed during construction. Removal of the vegetation cover would expose soils, which would consequentially introduce contrasting color and texture elements. An irregular shaped form would be also be introduce by the absence of vegetation viewed beside vegetation cover otherwise undisturbed during construction. Visibility of the base area surrounding the two proposed power pole structures farthest from KOP 10 is obstructed by deciduous tree cover and other vegetation. Thus, the surface disturbance and contrast it would create at these two structures would not be visible from KOP 10. Reclamation of the surface disturbance at all proposed power pole structures would be expected to immediately reduce the contrast associated with temporary construction disturbance in these areas.

The proposed power pole structures would be located next to the shoulder of North Virginia Street. The proximity to an existing road would be expected to preclude the need to construct new roads, routes, or other tracks for access during construction of the segment of the Poeville Alternative visible from KOP 10. However, if new roads, routes, or other equipment tracks are created for access, the basic design elements of line, color, and texture would be added to the foreground distance zone of the characteristic landscape. The introduced elements would have the greatest contrast in areas where vegetation cover currently exists. The visibility of the existing, unpaved North Virginia Street in the foreground distance zone of the characteristic landscape would lessen the degree of contrast that any roads and routes created for construction access would have. Reclamation of access roads following construction would further reduce the degree of contrast. Design features would be implemented to reduce the visual contrast associated with the blockade structures that would be installed to prevent access/use of reclaimed roads. Design features applicable to visual resources are described in **Section 1.2.4**.

The degree of contrast that the proposed project would have with the characteristic landscape at KOP 10 during construction would be negligible because contrasting elements would be temporarily visible, and would repeat elements associated the use of existing roads visible in the characteristic landscape.

Operation and Maintenance

The visual simulation suggests that portions of four proposed power pole structures would be visible from KOP 10. The proposed pole structures would be located in the foreground distance zone of the characteristic landscape. The proposed poles would replace existing, shorter poles that are currently used for an overhead distribution line and telephone line. The proposed pole

structures would be constructed with the conductors for the existing overhead distribution line as an under-build. The existing telephone line would also likely be attached as an under-build.

The vertical lines created by the existing power poles used for the distribution line would be replaced by taller and slightly thicker vertical lines associated with the proposed pole structures. Based on the visual simulation, it is estimated that the proposed structures would be approximately 40 percent to 60 percent taller than the existing power pole structures that would be replaced. The color of the proposed pole structures would be matte brown and somewhat similar to the color of the poles that they would replace. However, the existing poles are viewed against the backdrop of the foreground distance zone, but the proposed pole structures would be viewed against the backdrop of the middle-ground distance zone because they would be taller. The colors that characterize the middle-ground distance zone are moderately low-chroma shades of green, tan, brown, and dark brown. The matte appearance of the proposed structures would be contrast against these colors to a greater degree than the contrast created with colors in the foreground distance zone.

The insulators that would connect the overhead conductors to the proposed power pole structures are substantially larger than the existing conductors used to connect the distribution line to the power poles that would be replaced. The insulators on the proposed power pole structure closest to KOP 10 would introduce small, rhomboid-shaped forms that appear dark gray in color. The insulators would appear bold because they would be viewed against the low-chroma colors of the vegetation and landforms in the background distance zone. The insulators on the two proposed power poles structures farthest from KOP 10 would not be visible due to vegetation cover. The insulators on the other pole (second closest to KOP 10) would introduce short, straight horizontal lines that are matte brown in color.

In addition to existing power pole structures that would be replaced, several existing power pole structures used for the Alturas 345 kV transmission line are also visible in the foreground distance zone of the characteristic landscape. The color of the power pole structures associated with the Alturas 345 kV transmission line is very similar to the color that the proposed structures would be. The Alturas 345 kV transmission line power poles are almost twice as tall as the proposed structures, which would reduce the degree of contrast resulting from the vertical lines associated with the proposed structures. The line elements that would be introduced by the insulators on the proposed pole structures would be similar to the thin, short horizontal line elements that the cross-arms on the Alturas 345 kV transmission line contributes to the characteristic landscape. There are also residential and accessory structures and fence posts in the foreground distance zone that contribute bold vertical lines. The vertical lines associated with these structures and fence posts are much shorter than those that would be introduced by the

proposed power pole structures, but nonetheless would reduce the degree of contrast that the proposed structures would have.

The overhead conductors that would span between the proposed power pole structures would introduce curvilinear lines that are very thin, continuous, and roughly horizontal. From the vantage point of KOP 10, the curvilinear lines would be viewed against the backdrop of vegetation and landforms in the middle-ground distance zone. The middle-ground distance zone lacks continuous, curvilinear lines, and thus the lines introduced by the overhead conductors would contrast against the backdrop of the middle-ground distance zone. The curvilinear lines would appear dark gray in color, and have no discernible texture. The color of the vegetation cover and landforms in the middle-ground distance zone that the lines would be viewed against are relatively low chroma. The dark color of the overhead conductors viewed against the backdrop of low-chroma colors would further increase the contrast of the curvilinear lines. The proposed overhead conductors would have a moderate degree of contrast due to the absence of continuous, curvilinear lines and the low-chroma colors in the middle-ground distance zone which the conductors would be viewed against.

Additionally, because the proposed pole structures would be substantially taller than the existing power poles, the conductors for the existing distribution line would be raised to a greater height above the ground surface. Positioned higher above the ground surface, the existing conductors would be viewed against the backdrop of vegetation that is lighter in color than the vegetation that currently serves as a backdrop. When viewed against the lighter colors, the curvilinear lines associated with the existing conductors would be more distinct and thus contrast more.

Implementation of the Poeville Alternative would be expected to result in a moderate loss of the visual quality and scenic attributes of the characteristic landscape at KOP 10. Although there are form, line, color, and texture elements visible in the characteristic landscape that would be repeated by the proposed project, the number of these elements visible from KOP 10 would increase substantially. Additionally, many of the line and color elements that would be introduced by the proposed project would be viewed against the backdrop of the middle-ground distance zone. The middle-ground distance zone is characterized by line and color elements that are unlike those that would be introduced by the proposed project. Thus, the proposed project may attract the attention of casual observers, but would be expected to remain visually subordinate to the characteristic landscape. The magnitude of contrast resulting from operation and maintenance activities would be expected to have a moderate effect on visual resources at KOP 10.

The foreground distance zone of the characteristic landscape at KOP 10 that would be crossed by the Poeville Alternative consists of private land and NFS land. There are no VQOs designated

for the private land because the VRM system is not used for the management of visual resources on private land. VQOs have also not been designated for the NFS land in the foreground distance zone, although the visual resources in this area are managed using the VRM system. Consequently, the Poeville Alternative would not conflict with any VQOs at KOP 10 because there are no VQOs designated for the foreground distance zone.

KOP 11 (Peavine Road)

Construction

During construction, equipment and vehicles and construction materials and hardware would be visible in the foreground, middle-ground, and background distance zones of the characteristic landscape of KOP 11. Project equipment, vehicles, and materials and hardware would be visible from KOP 11 only during construction of the segment of the Poeville Alternative that is visible from KOP 11. According to the visual simulation, approximately eight proposed power pole structures would be visible from KOP 11. The relatively few number of poles that would be constructed within view of KOP 11 would reduce the period which construction equipment and vehicles and construction materials and hardware would be present and visible.

KOP 11 is located on the shoulder of Peavine Road, which is an unpaved road that is routinely used for motorized travel. Motorized travel on the road would contribute form, line, color, and textures elements that are similar to those that would be introduced by project equipment during construction. Additionally, vehicles and construction equipment associated with an existing gravel pit/aggregate operation in the middle-ground distance zone are visible from KOP 11. The line, form, color, and texture elements that would be introduced by project equipment would be similar to the elements that this equipment contributes to the characteristic landscape. Because project equipment and vehicles would be visible from KOP 11 only temporarily, and repeat form, line, color, and textures elements associated with existing vehicle use and the gravel pit, the degree of contrast that the equipment would have would be minimal.

The eight proposed power pole structures that would be visible from KOP 11 would be located in the foreground and middle-ground distance zones. There would be additional proposed power pole structures located in the background distance zone of the characteristic landscape, but the visual simulation suggests that these structures would not be visible from KOP 11. All proposed pole structures used for the segment of the Poeville Alternative visible from KOP 11 would replace existing pole structures that are currently used for a distribution power line.

Installation of the proposed power pole structures would require temporary construction-related surface disturbance around the base of each structure. The shrub vegetation cover that currently exists in the area where the base of the proposed structures would be located would be removed during construction. Removal of the vegetation cover would expose soils, which would

consequentially introduce contrasting color and texture elements. An irregular shaped form would be also be introduce by the absence of vegetation viewed beside vegetation cover otherwise undisturbed during construction. Existing surface disturbance where vegetation has been removed and soils have been disturbed is visible in the characteristic landscape. Surface disturbance around the base of the proposed pole structures would repeat line, color, and texture elements associated with existing surface disturbances, and thus the resulting degree of contrast would be reduced. Reclamation of the surface disturbance created during construction would be expected to further reduce the contrast.

The creation of new roads, routes, or other equipment tracks for construction access would introduce contrasting line, color, and texture elements to the foreground and middle-ground distance zones of the characteristic landscape of KOP 11. The introduced elements would have the greatest contrast in areas where vegetation cover currently exists because vegetation would be cleared from the driving surface of the road. The visibility of the existing, unpaved Peavine Road in the foreground distance zone would lessen the degree of contrast that access roads and routes would have because line, color, and texture elements it contributes to the landscape would be repeated. Reclamation of access routes and roads following construction would further reduce the degree of contrast. Design features would be implemented to reduce the visual contrast associated with the blockade structures that would be installed to prevent access/use of reclaimed roads. Design features applicable to visual resources are described in **Section 1.2.4**.

The proposed power pole structures that would be located in the background distance zone would be located immediately adjacent to an existing two-track road associated with the existing distribution line that would become an under-build on the proposed transmission line. The proximity to an existing road would be expected to preclude the need to construct new roads, routes, or other tracks for access during construction of the segment of the Poeville Alternative located in the background distance zone.

The degree of contrast that the proposed project would have with the characteristic landscape at KOP 11 during construction would be negligible. The degree of contrast would be negligible because contrasting elements would be temporarily visible, and would repeat elements associated with existing features and uses within the characteristic landscape.

Operation and Maintenance

The visual simulation suggests that approximately eight proposed power pole structures would be visible from KOP 11. Four of the proposed power pole structures would be located in the foreground distance zone and the other four would be located in the middle-ground distance zone. There would be additional proposed power pole structures located in the background distance zone of the characteristic landscape, but the visual simulation suggests that these

structures would not be visible from KOP 11. All proposed pole structures constructed for the segment of the Poeville Alternative visible from KOP 11 would replace existing pole structures that are currently used for a distribution power line. The proposed pole structures would be constructed with the conductors for the existing overhead distribution line as an under-build.

Based on the visual simulation, it appears that the proposed pole structures would be approximately 40 percent to 60 percent taller than the existing pole structures that they would replace. Consequently, the vertical line elements associated with the existing power poles would increase in height by as much as approximately 60 percent as a result of the proposed pole structures. The vertical line elements would also be slightly thicker because the proposed pole structures are larger in diameter than the existing power poles. The color of the proposed pole structures would be matte brown, which is similar to the brown color of the existing poles that would be replaced. Because the line, color, and texture elements that would be introduced by proposed pole structures would be similar to those that occur in association with existing pole structures in the characteristic landscape, the degree of contrast would be minimal.

According to the visual simulation, the overhead conductors that would span between the proposed power structures would be visible in the foreground distance zone only. The proposed conductors would introduce straight, very thin lines that are gray in color. The introduced lines would appear nearly identical to the existing conductors used for the distribution line visible in the characteristic landscape. The proposed conductors would also roughly parallel the existing conductors. Because the proposed overhead conductors would repeat line, color, and texture elements found in the existing characteristic landscape, the degree of contrast would be minimal.

Most of the elements that would be introduced during operation and maintenance of the proposed project would repeat form, line, color, and texture elements that are common to the characteristic landscape of KOP 11. The degree of contrast that the proposed project would have with the characteristic landscape would be reduced by the repetition of common form, line, color, and texture elements. Although the proposed project may increase the size and amount of some elements common to the characteristic landscape, the increase would be minimal and visually subordinate. The proposed project would not be expected to attract the attention of, or dominate the view of the casual observer. Loss of the visual quality and scenic attributes of the characteristic landscape at KOP 11 would be minimal. Thus, implementation of the Poeville Alternative would be expected to have a minor effect on visual resources at KOP 11.

The foreground and middle-ground distance zones of the characteristic landscape that would be crossed by the Poeville Alternative consists of private land that is not managed by the USFS. There are no VQOs assigned to these areas because the VRM system is not used for the management of visual resources on private land. The background distance zone that would be

crossed by the alignment consists of NFS land that is designated as Partial Retention VQO. As summarized in **Table 7**, management activities and actions should remain visually subordinate to the characteristic landscape in areas designated as Partial Retention VQO. Activities and actions may repeat form, line, color, or texture common to the characteristic landscape, but changes in their qualities of size, amount, intensity, direction, and so forth, should remain visually subordinate to the characteristic landscape. The proposed project would repeat form, line, color, and texture elements that occur in the characteristic landscape. The proposed project would be a visually subordinate addition to the characteristic landscape of KOP 11, and would not dominate the view of the casual observer. Accordingly, the Poeville Alternative would be consistent with the VQOs assigned to the characteristic landscape of KOP 11.

KOP 12 (Stead Trailhead)

Construction

Construction activities would occur in the middle-ground distance zone of the characteristic landscape of KOP 12. Based on the visual simulation, portions of approximately four proposed power pole structures would be visible. However, landforms in the foreground distance zone would obstruct views of the lower half of the proposed structures. Because the lower half of the structures would not be visible, any temporary surface disturbance around the base of the proposed structures required during their construction would not be visible from KOP 12. Likewise, any new roads or routes created for access during construction would also be obstructed from view by landforms in the foreground distance zone.

Most construction equipment and any vehicles belonging to the construction crew would also be expected to remain out of sight from KOP 12 because landforms in the foreground distance zone would obstruct their view. However, the upper parts of especially tall equipment may be visible. Visible equipment would introduce contrasting form, line, color, and texture elements to the middle-ground distance zone of the characteristic landscape. The degree of this contrast would be reduced because the elements introduced by project equipment would repeat elements common to the characteristic landscape as a result of existing vehicle use within sight of KOP 12. The contrast would persist temporarily until construction of the segment of the Poeville Alternative visible from KOP 12 is completed and construction equipment is removed. The relatively short length of the Poeville Alternative that would be visible from KOP 12 would suggest that only a brief period of time would be required to complete construction of this segment of the alignment.

The degree of contrast that construction of the proposed project would have with the characteristic landscape at KOP 12 would be negligible because contrasting elements would be visible temporarily, and would repeat elements found within the characteristic landscape.

Operation and Maintenance

The visual simulation suggests that portions of approximately four proposed power pole structures would be visible from KOP 12. All of the proposed pole structures would be located in the in the middle-ground distance zone of the characteristic landscape. The proposed pole structures visible from KOP 12 would replace existing pole structures that are currently used for a distribution power line. The proposed pole structures would be constructed with the conductors for the existing overhead distribution line as an under-build.

Based on the visual simulation, it appears that the proposed pole structures would be approximately the same height and diameter as the existing pole structures that would be replaced. The proposed pole structures would also be approximately the same color as the existing pole structures. Consequently, the proposed pole structures would not be expected to introduce any new form, line, color, or texture elements to the characteristic landscape.

Proposed overhead conductors are barely discernible from KOP 12 in the visual simulation. The proposed conductors are largely viewed against the backdrop of the sky, so weather and atmospheric conditions may increase the visibility of the conductors at other times. When visible, the conductors would introduce lines that are nearly identical to and parallel with the existing conductors used for the overhead distribution line. Because the proposed overhead conductors are barely discernible, and would repeat line, color, and texture elements found in the existing characteristic landscape, the degree of contrast would be negligible.

The degree of contrast that the proposed project would have with the characteristic landscape during operation and maintenance would be negligible because: 1) proposed pole structures would not introduce any new form, line, color, or texture elements; and 2) proposed overhead conductors would repeat elements common to the characteristic landscape. Implementation of the Poeville Alternative would be expected to result in a negligible loss of the visual quality and scenic attributes of the existing characteristic landscape at KOP 12. Implementation of the Poeville Alternative would be expected to have a negligible effect on visual resources at KOP 12.

The middle-ground distance zone of the characteristic landscape, which is the area that would be crossed by the Poeville Alternative visible from KOP 12, consists of NFS land that has not been designated VQOs. Consequently, the Poeville Alternative would not conflict with any VQOs at KOP 12.

KOP 13 (Trail Drive – East)

Construction

Construction equipment and any vehicles belonging to the construction crew would be visible from KOP 13 during construction of the proposed project. Project materials and hardware may also be visible from KOP 13 during construction. Visibility of these things would introduce contrasting form, line, color, and texture elements to the foreground distance zone of the characteristic landscape. According to the visual simulation, approximately four proposed power pole structures would be visible from KOP 13. The relatively few number of poles that would be constructed within view of KOP 13 would reduce the period which construction equipment and vehicles and construction materials and hardware would be present and visible.

KOP 13 is located on the shoulder of Trail Drive, near its western end, approximately 425 feet south of North Virginia Street. The line, form, color, and texture elements that would be introduced by project equipment and vehicles would repeat elements associated with vehicles that routinely travel on these roads and others within sight of KOP 13. Additionally, vehicles parked at residences along Trail Drive and the actual residential structures also contribute form, line, color, and texture elements to the landscape that are similar to those that would be introduced by project equipment and vehicles during construction. Because project equipment and vehicles would be visible from KOP 13 temporarily and briefly, and repeat elements common to the characteristic landscape, the degree of contrast would be minimal and not substantial.

The four proposed pole structures that would be visible from KOP 13 would be located in the foreground distance zone of the characteristic landscape. The proposed pole structures visible from KOP 13 would replace existing pole structures that are currently used for a distribution power line. The proposed pole structures would be constructed with the conductors for the existing overhead distribution line as an under-build.

Installation of the proposed pole structures would require temporary construction-related surface disturbance around the base of each structure. The surface disturbance at the base of each proposed structure would require the existing shrub vegetation cover to be removed from the area. Removal of the vegetation cover would expose soils, which would consequentially introduce contrasting color and texture elements. The color and texture of the exposed soils would likely resemble color and texture of the unpaved road surface of Trail Drive, which is located adjacent to each of the proposed structures. Similarity among the color and texture elements would reduce the degree of contrast that temporary surface disturbance would have. The removal of vegetation around the base of each structure would also create an irregular- to patch-shaped form when viewed within the context of the surrounding vegetation cover that

would otherwise not be disturbed during construction. Following construction, temporary surface disturbance at all proposed pole structure locations would be reclaimed, which would include seeding the area. Thus, reclamation would be expected to further reduce the contrast associated with removal of existing vegetation cover.

The proposed power pole structures would be located adjacent to Trail Drive. The proximity to the existing road would be expected to preclude the need for new roads, routes, or other tracks to be created for access during construction of the segment of the Poeville Alternative visible from KOP 13. If any new access roads or routes were to be created they would introduce contrasting form, line, color, and texture elements to the landscape. These elements would repeat the elements that the existing Trail Drive contributes to the characteristic landscape. Repetition of elements common to the characteristic landscape would reduce the degree of contrast associated with new access roads and routes. Reclamation of access routes and roads following construction would further reduce the degree of contrast. Design features would be implemented to reduce the visual contrast associated with the visibility of the blockade structures that would be installed to prevent access/use of reclaimed roads. Design features applicable to visual resources are described in **Section 1.2.4**.

The degree of contrast that the proposed project would have with the characteristic landscape at KOP 13 during construction would be negligible. The degree of contrast would be negligible because contrasting elements would be visible temporarily, and would repeat elements associated with existing features and uses within the characteristic landscape.

Operation and Maintenance

The visual simulation suggests that four proposed power pole structures would be visible from KOP 13. The proposed structures would be constructed as single pole structures and would replace existing single pole structures that are associated with the existing overhead distribution power line. The proposed structures and the existing structures that would be replaced are located in the foreground distance zone of the characteristic landscape. Based on the visual simulation, it is estimated that the proposed pole structures would be approximately 40 percent to 60 percent taller than the existing structures that would be replaced. Thus, the vertical lines contributed to the characteristic landscape by the existing pole structures would increase in length when replaced by the proposed pole structures. The color of the proposed pole structures would be light brown and matte, which is somewhat similar to the dark brown color of the existing pole structures.

Slight variations in the color of the lines formed by the power pole structures, and an increase in the length of the vertical lines are the only noticeable changes that would result from replacement of existing pole structures with proposed structures. Existing pole structures

associated with the Alturas 345 kV transmission line and other distribution power lines visible from KOP 13 also contribute thin, vertical lines to the characteristic landscape that are similar to those that would be introduced by proposed structures. Because the line, color, and texture elements that would be introduced by proposed pole structures would be similar to and repeat those that occur in the existing characteristic landscape, the degree of contrast would not be substantial.

The insulators that would connect the overhead conductors to the proposed power pole structures are substantially larger than the existing insulators that are used to connect the conductors for the existing distribution line to the power poles that would be replaced. The proposed insulators would introduce small, rectangle-shaped forms that appear dark gray in color. The insulators would be attached to the proposed pole structures such that they would be oriented close to vertical, but slightly diagonal. The insulators would be viewed against the backdrop of the sky from the vantage point of KOP 13. When viewed against a bright blue sky, the dark gray color of the insulators cause the form to be bold.

The existing pole structures associated with the Alturas 345 kV transmission line that are visible from KOP 13 include cross-arms that contribute small, rectangle-shaped forms to the characteristic landscape. Small, roughly rectangle-shaped forms are also contributing components associated with transformers mounted to several of the existing pole structures that would be replaced with proposed structures. These existing forms are also dark gray in color and oriented slightly diagonal. The form, color, and texture elements introduced to the characteristic landscape by proposed insulators would repeat those contributed by the components on the existing Alturas 345 kV transmission line and distribution line pole structures. The degree of contrast resulting from the addition of the proposed insulators to the characteristic landscape would be negligible to minor.

The proposed overhead conductors would introduce six very thin, curvilinear lines to the foreground distance zone of the characteristic landscape. An additional thin, curvilinear line would be introduced from a shield wire that would span between the proposed pole structures. These lines would be gray in color, and have no discernible texture. These lines would roughly parallel the existing thin curvilinear lines contributed to the landscape by the existing distribution line that would be attached to the proposed structures as an under-build. Because the proposed and existing conductors would be nearly identical, and the line elements associated with them would be roughly parallel and grouped, the proposed conductors would not introduce any substantial contrasting form, line, color, or texture elements to the characteristic landscape. The degree of contrast resulting from the addition of the proposed conductors and shield wire to the characteristic landscape would be minimal.

The degree of contrast that the proposed project would have with the characteristic landscape during operation and maintenance would be minor because form, line, color, or texture elements introduced by the proposed project would repeat elements found in the characteristic landscape. Implementation of the Poeville Alternative would be expected to result in a minimal loss of the visual quality and scenic attributes of the existing characteristic landscape at KOP 13. Construction and operation and maintenance activities would be expected to have a minor effect on visual resources at KOP 13.

The foreground, middle-ground, and background distance zones of the characteristic landscape consist of private land that is not managed by the USFS. The VRM system is not used for the management of visual resources on private land, and VQOs have not been assigned to these areas. Accordingly, the Poeville Alternative would not conflict with any existing VQOs at KOP 13.

KOP 14 (Trail Drive – West)

Construction

Visibility of construction equipment, vehicles, and materials would introduce contrasting form, line, color, and texture elements to the foreground distance zone of the characteristic landscape during construction. According to the visual simulation, approximately six proposed power pole structures would be visible from KOP 14. The relatively few number of poles that would be constructed within view of KOP 14 would reduce the period which construction equipment and vehicles and construction materials and hardware would be present and visible.

KOP 14 is located at the east end of Trail Drive and approximately 500 feet south of North Virginia Street. Vehicles travelling on these roads, as well as other roads in the surrounding vicinity routinely contribute form, line, color, and texture elements to the characteristic landscape that would be repeated by those introduced by project equipment and vehicles during construction. Additionally, vehicles parked at residences along Trail Drive and Mar Mac Way also contribute form, line, color, and texture elements that are similar to those that would be introduced by project equipment and vehicles during construction. Because project equipment and vehicles would be visible from KOP 14 temporarily and briefly, and repeat form, line, color, and textures elements common to the characteristic landscape, the degree of contrast would be minimal.

The six proposed pole structures that would be visible from KOP 14 would be located in the foreground distance zone of the characteristic landscape. The proposed pole structures visible from KOP 14 would replace existing pole structures that are currently used for a distribution power line. Installation of the proposed pole structures would require temporary construction-related surface disturbance around the base of each structure. The surface disturbance at the base

of each proposed structure would require the existing shrub vegetation cover to be removed from the area. Removal of the vegetation cover would expose soils, which would consequentially introduce contrasting color and texture elements. The color and texture of the exposed soils would likely resemble color and texture of the unpaved road surface of Trail Drive, which is located adjacent to each of the proposed structures. Similarity among the color and texture elements would reduce the degree of contrast that temporary surface disturbance would have. The removal of vegetation around the base of each structure would also create an irregular- to patch-shaped form when viewed within the context of the surrounding vegetation cover that would otherwise not be disturbed during construction. Following construction, temporary surface disturbance at all proposed pole structure locations would be reclaimed, which would include seeding the area. Thus, reclamation would be expected to further reduce the contrast associated with removal of existing vegetation cover.

The proposed power pole structures would be located adjacent to Trail Drive. The proximity to the existing road would be expected to preclude the need for new roads, routes, or other tracks to be created for access during construction of the segment of the Poeville Alternative visible from KOP 14. If any new access roads or routes were to be created they would introduce contrasting form, line, color, and texture elements to the landscape. These elements would repeat the elements that existing Trail Drive contributes to the characteristic landscape. Repetition of elements common to the characteristic landscape would reduce the degree of contrast associated with new access roads and routes. Reclamation of access routes and roads following construction would further reduce the degree of contrast. Design features would be implemented to reduce the visual contrast associated with the blockade structures that would be installed to prevent access/use of reclaimed roads. Design features applicable to visual resources are described in **Section 1.2.4** of this Specialist Report.

The degree of contrast that the proposed project would have with the characteristic landscape at KOP 14 during construction would be negligible. The degree of contrast would be negligible because contrasting elements would be temporarily and briefly visible, and would repeat elements that are common to the characteristic landscape.

Operation and Maintenance

The visual simulation suggests that six proposed power pole structures would be visible from KOP 14. The proposed pole structures would be located in the in the foreground distance zone of the characteristic landscape. The proposed structures would be constructed as single-pole structures, and would replace existing single-pole structures that are currently used for an overhead distribution power line. The conductors of the existing overhead distribution power line would be attached to the proposed pole structures as an under-build.

Based on the visual simulation, it appears that the proposed pole structures would be approximately 40 percent to 60 percent taller than the existing pole structures that would be replaced. Consequently, the vertical line elements associated with the existing power poles would increase in height by as much as approximately 60 percent as a result of replacement with the proposed pole structures. The color of the proposed pole structures would be light brown and appear matte. This is somewhat similar to the dark brown color of the existing pole structures.

Slight variations in the color of the lines formed by the power pole structures and an increase in the length of the vertical lines are the only noticeable changes that would result from replacement of existing pole structures with proposed structures. Existing pole structures associated with the Alturas 345 kV transmission line and other distribution power lines visible from KOP 14 also contribute thin, vertical lines to the characteristic landscape that are similar to those that would be introduced by proposed structures. Because the line, color, and texture elements that would be introduced by proposed pole structures would be similar to and repeat elements associated with existing pole structures in the characteristic landscape, the degree of contrast would be minimal.

The insulators that would connect the overhead conductors to the proposed power pole structures are substantially larger than the existing insulators that are used to connect the distribution line conductors to the existing power poles that would be replaced. The proposed insulators would introduce small, rectangle-shaped forms that appear dark gray in color. The insulators would be attached to the proposed pole structures such that they would be oriented close to vertical, but slightly diagonal. The insulators on the three proposed pole structures closest to KOP 14 would be viewed against the backdrop of the sky. When viewed against a bright blue sky, the dark gray color of the insulators cause the form to be bold. The insulators on the proposed structures further from KOP 14 would be viewed against the backdrop of vegetation cover in the middle-ground and background distance zones. The dark gray color of the insulators would not contrast with the color of the vegetation cover as much, and thus the form element associated with them would be weak and indistinct. The degree of contrast resulting from the addition of the proposed insulators to the characteristic landscape would be minor.

The proposed overhead conductors would introduce six very thin, curvilinear lines to the foreground distance zone of the characteristic landscape. An additional thin, curvilinear line would be introduced from a shield wire that would span between the proposed pole structures. These lines would be gray in color, and have no discernible texture. These lines would roughly parallel the existing thin curvilinear lines contributed to the landscape by the existing distribution line that would be attached to the proposed structures as an under-build. Because the proposed and existing conductors would be nearly identical, and the line elements associated with them

would be roughly parallel and grouped, the proposed conductors would not introduce any substantial contrasting form, line, color, or texture elements to the characteristic landscape.

Most of the elements that would be introduced during operation and maintenance of the proposed project would repeat form, line, color, and texture elements that are common to the characteristic landscape. Repetition of common form, line, color, and texture elements would reduce the degree of contrast that the proposed project would have with the characteristic landscape. Although the proposed project may increase the size and amount of some elements common to the characteristic landscape, the increase would be minimal and visually subordinate. The proposed project would not be expected to attract the attention of, or dominate the view of the casual observer. Loss of the visual quality and scenic attributes of the characteristic landscape at KOP 14 would be minimal. Thus, implementation of the Poeville Alternative would be expected to have a minor effect on visual resources at KOP 14.

The foreground distance zone of the characteristic landscape at KOP 14 that would be crossed by the Poeville Alternative consists of private land that is not managed by the USFS. There are no VQOs assigned to this area because the VRM system is not used for the management of visual resources on private land. Thus, implementation of the Poeville Alternative would not be inconsistent with any VQOs at KOP 14.

KOP 15 (Truckee River Bridge)

Construction

Visibility of construction equipment, vehicles, and materials would introduce contrasting form, line, color, and texture elements to the foreground distance zone of the characteristic landscape of KOP 15. Vehicles routinely travelling on the section of State Route 425 within view of KOP 15 contribute form, line, color, and texture elements that would be repeated by project equipment and vehicles during construction. Repetition of these elements would reduce the degree of contrast that would result from visibility of project equipment and vehicles. The contrast resulting from project equipment, vehicles, and materials would persist temporarily until construction of the segment of the Poeville Alternative visible from KOP 15 is completed. Based on the visual simulation, a relatively short length of the Poeville Alternative would be visible from KOP 15. The relatively short length of the alignment within sight of KOP 15 would minimize construction time occurring within view of KOP 15. Thus, the period which equipment and vehicles would be visible would be minimized as well.

According to the visual simulation, portions of approximately 10 proposed H-frame pole structures would be visible from KOP 15. Installation of the pole structures would require temporary construction-related surface disturbance around the base of each structure. Two of the proposed pole structures visible from KOP 15 would be located within the middle-ground

distance zone of the characteristic landscape. Views of the vegetation cover and landforms in the middle-ground distance zone are obstructed by the vegetation cover and landforms in the foreground distance zone. Thus, the surface disturbance around the base of these two proposed pole structures would not visible from KOP 15. The other eight proposed pole structures would be located in the background distance zone. Vegetation cover in the background distance zone consists largely of cheatgrass. Because cheatgrass grows to relatively short heights and remains close to the ground surface, removal of the vegetation around each proposed structure would not introduce strongly contrasting form or line elements. The color of disturbed soils around each pole would be expected to be dark brown and would contrast with the light tan color of the cheatgrass that would surround it. However, reclamation of the surface disturbance would be expected to immediately reduce the contrast associated with removal of the existing vegetation cover and soil disturbance.

New roads, routes, or other tracks created for access to the proposed pole structures that would be located in the middle-ground distance zone would not be visible from KOP 15 because views of this area are obstructed by features in the foreground distance zone. Access roads and routes created in the background distance zone would introduce line and color elements that contrast with the elements associated with the vegetation cover and landforms in the background distance zone. The visibility of existing unnamed and unpaved roads in the foreground distance zone of the characteristic landscape would reduce the degree of contrast that new roads and routes created for access would have. Reclamation of access routes and roads following construction would further reduce the degree of contrast. Design features would be implemented to reduce the visual contrast associated with the visibility of the blockade structures that would be installed to prevent access/use of reclaimed roads. Design features applicable to visual resources are described in **Section 1.2.4** of this Specialist Report.

The degree of contrast that the proposed project would have with the characteristic landscape at KOP 15 during construction would be negligible. The degree of contrast would be negligible because contrasting elements would be visible temporarily and briefly, and would repeat elements that are common to the characteristic landscape.

Operation and Maintenance

Based on the visual simulation, approximately two proposed H-frame pole structures would be visible in the middle-ground distance zone and eight proposed H-frame pole structures would be visible in the background distance zone of the characteristic landscape of KOP 15. The proposed pole structures that would be located in the middle-ground distance zone would introduce bold, but thin, vertical lines that are simple and continuous. The vertical lines would be introduced as a pair of parallel lines at the location of each proposed power pole structure because they would be constructed as H-frame structures. However, one of the power pole structures that would be

located in the middle-ground distance zone would be an H-frame corner-pole structure, and require a third pole. Thus, three parallel vertical lines would be introduced by the addition of this structure to the characteristic landscape. The cross-arm on this structure would also be visible and introduce a short, straight horizontal line to the characteristic landscape. The texture of the power pole structures in the middle-ground distance zone would be indiscernible, but the color would appear as very dark brown. The very dark brown color of the pole structures would appear bold against the backdrop of the light tan color of vegetation in the background distance zone.

The power pole structures that would be located in the background distance zone would introduce thin, simple vertical lines similar to those introduced in the middle-ground distance zone. However, the lines introduced in the background distance zone would be weak because they are very light brown and tan in color, and have little contrast with the color of the surrounding vegetation. The lines would become increasingly weaker farther from KOP 15 because the color of each power pole structures would become a lighter shade of brown as distance from KOP 15 increases.

There are several existing power pole structures visible in the middle-ground distance zone of the characteristic landscape that are brown, light brown, and dark brown in color. These structures contribute thin, simple vertical lines that are very similar to those that would be introduced by the proposed power pole structures in the middle-ground and background distance zones. There are dark green and green fence posts in the foreground distance zone that contribute short, simple vertical lines to the characteristic landscape. Because the proposed power pole structures would repeat line, color, and texture elements found in the existing characteristic landscape, the degree of contrast that they would have with the characteristic landscape would be minimal.

According to the visual simulation, the overhead conductors that would span between the proposed power structures would be visible in the middle-ground distance zone but not the background distance zone. The visible overhead conductors would introduce very thin, slender lines that are straight and nearly horizontal. The color of the overhead conductors, and thus the lines created by them would be light gray. The texture would be indiscernible. The overhead conductors would span low shrubs and sparse grasses, and not require a corridor to be cleared through forest vegetation.

There are existing overhead conductors visible in the middle-ground distance zone of the characteristic landscape. The existing conductors contribute very thin, slender lines that are nearly straight and horizontal, and almost identical to those that would be introduced by the proposed overhead conductors. The existing overhead conductors are also light gray in color and have no discernible texture. Additionally, the barbed wire strands on a fence in the foreground distance zone contributes thin, straight lines to the characteristic landscape. These lines are also

nearly horizontal, but unlike the proposed overhead conductors, are dark gray in color. Because the proposed overhead conductors visible from KOP 15 would repeat line, color, and texture elements found in the characteristic landscape, the degree of contrast that they would have would be minimal.

Most of the form, line, color, and texture elements that would be added from operation and maintenance of the proposed project would repeat elements that are common to the characteristic landscape of KOP 15. Repetition of common form, line, color, and texture elements would reduce the degree of contrast that the proposed project would have with the characteristic landscape. Although the proposed project may increase the size and amount of some elements common to the characteristic landscape, the increase would be minimal and visually subordinate. The proposed project would not be expected to attract the attention of or dominate the view of the casual observer. Loss of the visual quality and scenic attributes of the characteristic landscape would be minimal. Implementation of the Poeville Alternative would be expected to have a minor effect on visual resources at KOP 15.

The middle-ground and background distance zones of the characteristic landscape at KOP 15 that would be crossed by the Poeville Alternative consists of private land that is not managed by the USFS. There are no VQOs assigned to this area because the VRM system is not used for the management of visual resources on private land. Thus, implementation of the Poeville Alternative would not be inconsistent with any VQOs at KOP 15.

KOP 16 (Verdi Library Parking Lot - West)

Construction

Visibility of construction equipment and vehicles and project materials would introduce contrasting form, line, color, and texture elements to the foreground distance zone of the characteristic landscape of KOP 16. KOP 16 is located at the parking lot area for the Verdi Public Library and is approximately 200 feet east of Bridge Street. Vehicles belonging to library patrons and vehicles travelling on Bridge Street within view KOP 16 contribute form, line, color, and texture elements to the characteristic landscape that would be repeated by project equipment and vehicles during construction. Repetition of these elements would reduce the degree of contrast that project equipment and vehicles would have.

The contrast resulting from visibility of project equipment, vehicles, and materials would persist temporarily until construction of the segment of the Poeville Alternative visible from KOP 16 is completed. Based on the visual simulation, a relatively short length of the Poeville Alternative would be visible from KOP 16. The relatively short length of the alignment within sight of KOP 16 would minimize construction time occurring within view of KOP 16, and thus minimize the period which equipment and vehicles would be operated and visible. Because project

equipment and vehicles would be temporarily and briefly visible from KOP 16, and repeat form, line, color, and textures elements associated with vehicle use in the area, project equipment would have a minimal degree of contrast.

According to the visual simulation, a single proposed H-frame pole structure would be visible from KOP 16. The proposed pole structure would replace an existing H-frame pole structure that is used for the existing but inactive #632 power line. Installation of the pole structure would require temporary construction-related surface disturbance around the base of the structure. The surface disturbance at the base of the proposed structure would require the existing shrub vegetation cover to be removed from the area. Removal of the vegetation cover would expose soils, which would consequentially introduce contrasting color and texture elements. Following construction, temporary surface disturbance would be reclaimed, which would include seeding the disturbed areas. Thus, reclamation would be expected to reduce the contrast associated with removal of the existing vegetation cover and disturbance of soils during construction.

The creation of roads, routes, or other tracks for access to the location of the proposed pole structure that would be visible from KOP 16 would introduce linear, color, and texture elements to foreground distance zone. The greatest contrast would result from removal of the existing vegetation cover from the driving surface of the access road. The proposed pole structure that would be visible from KOP 16 would be located approximately 230 feet from both Bridge Street and Prickly Pear Drive. Thus, it is expected that any new access roads would be approximately 230 feet in length. The relatively minimal length of new access road and routes that would be anticipated to be required during construction combined with reclamation of any roads that are created for construction access would lessen the degree of contrast to a level that is minimal. Design features would be implemented to reduce the visual contrast associated with the visibility of the blockade structures that would be installed to prevent access/use of reclaimed roads. Design features applicable to visual resources are described in **Section 1.2.4** of this Specialist Report.

The degree of contrast that construction of the proposed project would have with the characteristic landscape at KOP 16 would be negligible because contrasting elements would be temporarily visible, and would repeat elements common to the characteristic landscape.

Operation and Maintenance

The visual simulation suggests that one proposed power pole structure would be visible from KOP 16. The proposed structure would be constructed as an H-frame pole structure, and would replace an existing H-frame pole structure that is associated with the inactive #632 power line. The proposed structure and the existing structure that it would replace are located in the foreground distance zone of the characteristic landscape.

The proposed structure would be slightly taller than the existing structure that it would replace. Thus, the vertical lines being contributed to the characteristic landscape by the existing pole structure would increase in length when replaced by the proposed pole structure. The color of the proposed pole structure would be dark brown and matte, which is similar to the dark brown color of the existing pole structure. Slight variations in the color of the lines created by the power pole structure, and minor increases in the height of the vertical lines are the only noticeable changes that would result from replacement of existing pole structure with the proposed structure. Because the line, color, and texture elements that would be introduced by proposed pole structure would be very similar to those associated with the existing pole structure, the degree of contrast would be negligible.

The proposed overhead conductors and the insulators that would be used to attach the conductors to the power pole structure would be nearly identical to the existing conductors and insulators used for the inactive #632 power line. Thus the proposed conductors and insulators would not introduce any contrasting form, line, color, or texture elements to the characteristic landscape. However, two shield wires would span between the tops of the proposed pole structures. The shield wires would introduce additional lines to the characteristic landscape. The lines that would be introduced by the shield wires would appear identical to the existing and proposed overhead conductors, and parallel them. Because the proposed overhead conductors and insulators would not introduce contrasting form, line, color, or texture elements, and shield wires would repeat elements found in the characteristic landscape, the degree of contrast would be negligible.

The degree of contrast that the proposed project would have with the characteristic landscape during operation and maintenance would be negligible because elements added by the proposed project would repeat elements common to the characteristic landscape. Increase in size and amount of elements would occur, but the increase would be minimal and not substantial. The proposed project would not be expected to attract the attention of, or dominate the view of the casual observer. Loss of the visual quality and scenic attributes of the characteristic landscape at KOP 16 would be minimal. Thus, implementation of the Poeville Alternative would be expected to have a negligible effect on visual resources at KOP 16.

The foreground distance zone of the characteristic landscape at KOP 16, which is the area that the Poeville Alternative would cross, consists of private land that is not managed by the USFS. There are no VQOs assigned to this area because the VRM system is not used for the management of visual resources on private land. Thus, implementation of the Poeville Alternative would not conflict with any VQOs at KOP 16.

KOP 17 (Verdi Library Parking Lot – East)

Construction

Visibility of construction equipment and vehicles and project materials would introduce contrasting form, line, color, and texture elements to the foreground distance zone of the characteristic landscape of KOP 17. KOP 17 is located at the parking lot area for the Verdi Public Library, and is approximately 200 feet east of Bridge Street. Vehicles belonging to library patrons and vehicles travelling on Bridge Street within view of KOP 17 contribute form, line, color, and texture elements to the characteristic landscape that would be repeated by project equipment and vehicles during construction. Repetition of these elements would reduce the degree of contrast that would result from visibility of project equipment and vehicles.

The contrast resulting from visibility of project equipment, vehicles, and materials would persist temporarily until construction of the segment of the Poeville Alternative visible from KOP 17 is completed. Based on the visual simulation, a relatively short length of the Poeville Alternative would be visible from KOP 17. The relatively short length of the alignment within sight of KOP 17 would minimize construction time occurring within view of KOP 17, and thus minimize the period which equipment and vehicles would be operated and visible. Because project equipment and vehicles would be visible from KOP 17 temporarily and briefly, and the elements introduced by their visibility would repeat elements that are common to the characteristic landscape, the degree of contrast that the equipment would have would be minimal.

According to the visual simulation, approximately three proposed power pole structures would be visible from KOP 17. The proposed poles would replace existing poles that are used for the existing but inactive #632 power line. Installation of the pole structures would require temporary construction-related surface disturbance around the base of each structure. The surface disturbance at the base of each proposed structure would require the existing shrub vegetation cover to be removed from the area. Removal of vegetation cover and disturbance of soils would introduce contrasting form, color, and texture elements. Following construction, temporary surface disturbance at all proposed pole structure locations would be reclaimed, which would include seeding the area. Thus, reclamation would be expected to reduce the contrast associated with the removal of the existing vegetation cover during construction.

The addition of new roads, routes, or other tracks from project equipment and vehicles that are created for access to the project area visible from KOP 17 would introduce linear, color, and texture elements to foreground distance zone of the characteristic landscape. The greatest contrast would result from removal of the existing vegetation cover within the driving surface of the access road. The proposed structures visible from KOP 17 are located adjacent to or within close proximity to existing roads and parking lot areas. It is expected that use of existing roads

and parking lot areas for access would minimize the length of new roads that would be created for access. The expected minimal length of new access roads and routes that would be required and reclamation of any roads that are created would lessen the degree of contrast to a level that is minimal. Design features would be implemented to reduce the visual contrast associated with the visibility of the blockade structures that would be installed to prevent access/use of reclaimed roads. Design features applicable to visual resources are described in **Section 1.2.4** of this Specialist Report.

The degree of contrast that construction of the proposed project would have with the characteristic landscape at KOP 17 would be negligible because contrasting elements would be visible temporarily, and would repeat elements that are common to the characteristic landscape.

Operation and Maintenance

The visual simulation suggests that three proposed power pole structures would be visible from KOP 17. The proposed structures would be constructed as H-frame pole structures, and each would replace an existing H-frame pole structure that are associated with the inactive #632 power line. The proposed structures and the existing structures that they would replace are located in the foreground distance zone of the characteristic landscape.

The proposed structures would be several feet taller than the existing pole structures that they would replace. Thus, the vertical lines contributed to the characteristic landscape by the existing pole structures would increase in length when replaced by the proposed pole structures. The color of the proposed pole structures would be dark brown and matte, which is similar to the dark brown color of the existing pole structures. Slight variations in the color of the lines formed by the power pole structures, and minor increases in the height of the vertical lines are the only noticeable changes that would result from replacement of existing pole structures with proposed structures. Because the line, color, and texture elements that would be introduced by proposed pole structures would be similar to those that occur in association with existing pole structures in the characteristic landscape, the degree of contrast would be negligible.

The proposed overhead conductors and the insulators that would be used to attach the conductors to the power pole structures would be nearly identical to the existing conductors and insulators used for the inactive #632 power line. Thus, the proposed conductors and insulators would not introduce any contrasting form, line, color, or texture elements to the characteristic landscape. However, two shield wires would span between the tops of the proposed pole structures. The shield wires would introduce additional lines to the characteristic landscape. The lines that would be introduced by the shield wires would appear identical to the existing and proposed overhead conductors, and parallel them. Because the proposed overhead conductors and insulators would

not introduce contrasting form, line, color, or texture elements, and shield wires would repeat elements found in the characteristic landscape, the degree of contrast would be negligible.

The degree of contrast that the proposed project would have with the characteristic landscape during operation and maintenance would be negligible because elements added by the proposed project would repeat elements common to the characteristic landscape. Increase in size and amount of elements would occur, but the increase would be minimal. The proposed project would not be expected to attract the attention of, or dominate the view of the casual observer. Loss of the visual quality and scenic attributes of the characteristic landscape at KOP 17 would be minimal. Thus, implementation of the Poeville Alternative would be expected to have a negligible effect on visual resources at KOP 17.

The foreground distance zone at KOP 17, which is the area that the Poeville Alternative would cross, consists of private land that is not managed by the USFS. There are no VQOs assigned to this area because the VRM system is not used for the management of visual resources on private land. Implementation of the Poeville Alternative would not conflict with any VQOs at KOP 17.

3.3.3.2 Consistency with Federal Visual Resource Management Areas

The VQOs that have been designated for the NFS land that would be crossed by the Poeville Alternative include Modification, Partial Retention, and a very small area of Maximum Modification (**Figure 5-A**). The BLM-administered public lands that would be crossed by the Poeville Alternative are designated as VRM Class III. The proposed improvements at the Bordertown Substation would also occur on BLM-administered public lands that are designated as VRM Class III.

The objectives of the Modification VQO state that activities and actions may visually dominate the characteristic landscape, but activities and actions that alter vegetation and landforms must borrow from naturally established elements (**Table 7**). In areas designated as Modification, VQO actions which consist largely of the introduction of new facilities, such as signs and roads, should borrow naturally established elements such that its visual characteristics are compatible with the natural surroundings.

The area of NFS land designated as Modification that would be crossed by the Poeville Alternative is also crossed by the existing Alturas 345 kV transmission line and North Virginia Street. These existing features contribute form, line, color, and texture elements to the characteristic landscape that would be repeated by the proposed project during construction and during operation and maintenance. Repetition of elements common to the characteristic landscape would reduce the degree of contrast that the proposed project would have, and would prevent the proposed project from dominating the view of the casual observer. The visual

characteristics of the proposed project would be compatible with the natural surroundings because it would repeat elements common to the characteristic landscape that surrounds it. Accordingly, implementation of the Poeville Alternative would be consistent with the objectives of the Modification VQO.

The NFS land that would be crossed by the Poeville Alternative and that has been designated as Partial Retention VQO appear in the background distance zone of the characteristic landscape of KOP 11. As discussed in the analysis of potential impacts at KOP 11 (**Section 3.3.3.1**), form, line, color, and texture elements that would be introduced by the proposed project would repeat those found in the existing characteristic landscape. The proposed pole structures would replace existing pole structures that are associated with an existing overhead distribution power line. The vertical line elements that existing pole structures contribute to the characteristic landscape would increase in length when replaced with the proposed pole structures. However, the change in the size of elements resulting from the replacement of existing pole structures with proposed structures would be minimal and visually subordinate within the characteristic landscape.

The overhead conductors used for the existing overhead distribution power line contributes thin curvilinear lines to the characteristic landscape. The proposed conductors would add additional curvilinear lines to the characteristic landscape that are essentially identical in appearance and roughly parallel with the existing conductors. Because the proposed conductors would repeat elements found in the characteristic landscape, the resulting degree of contrast would be minimal and visually subordinate.

The objectives of the Partial Retention VQO indicate that activities and actions should remain visually subordinate to the characteristic landscape. Activities and actions may repeat form, line, color, or texture common to the characteristic landscape, but changes in their qualities of size, amount, intensity, direction, and so forth, should remain visually subordinate to the characteristic landscape (**Table 7**). Because the proposed project would repeat elements found in the area of Partial Retention VQO that would be crossed by the Poeville Alternative, and changes in the size and amount of the elements would remain visually subordinate, implementation of the Poeville Alternative would be consistent with the objectives of the Partial Retention VQO.

The BLM VRM Class III objectives are to partially retain the existing character of the landscape. Activities in areas of VRM Class III may attract attention but should not dominate the view of the casual observer, and changes should repeat basic elements found in the predominant natural features of the characteristic landscape (**Table 8**).

The proposed transmission line would be located adjacent to and roughly parallel with the existing Alturas 345 kV transmission line where the Poeville Alternative would cross the BLM

VRM Class III area (**Figure 5-A**). The Alturas 345 kV transmission line contributes form, line, color, and texture elements to the characteristic landscape that would be repeated by the proposed project during operation and maintenance. Because the proposed transmission line would repeat elements found in the characteristic landscape, the resulting degree of contrast would be minimal and would not dominate the view of the casual observer. Any roads or routes or other clearings created during construction of the proposed project would introduce elements that repeat those found in the characteristic landscape from existing unpaved roads that cross the BLM VRM Class III area. Improvements to the Bordertown Substation would repeat elements that currently exist at the substation and would not attract the attention of casual observers. Implementation of the Poeville Alternative would be consistent VRM Class III objectives.

3.3.3.3 Consistency with Land and Resource Management Plans

The Poeville Alternative is consistent and compliant with the Forest Plan (USFS 1986) and the BLM PRMP (2007) and ROD (2008). Implementation of the Poeville Alternative would not require an amendment of either of the aforementioned plans or ROD.

3.3.4 Peavine/Poeville Alternative

3.3.4.1 Visual Quality and Scenic Attribute Effects

Implementation of the Peavine/Poeville Alternative would result in the proposed transmission line following the Peavine/Poeville Alignment from the Bordertown Substation to the California Substation (**Figure 1**). Following this alignment, sections of the proposed transmission line would be visible during construction and operation from the following KOPs:

- KOP 7 (Forest Route 41192 – North);
- KOP 15 (Truckee River Bridge);
- KOP 16 (Verdi Library Parking Lot – West); and
- KOP 17 (Verdi Library Parking Lot – East).

The potential effects that the Peavine/Poeville Alternative would have during construction and during operation and maintenance of the proposed project at each of the KOPs are described below. Photographs of the existing characteristic landscape and the computer-generated visual simulations of the proposed project at each KOP are provided in **Appendix A**. The location of all KOPs is shown on **Figure 5-A**. The viewshed analysis for the Peavine/Poeville Alternative is shown on **Figure 9**.

<u>KOP 7 (Forest Route 41192 – North)</u>

The section of the Peavine/Poeville Alternative that would be visible from KOP 7 is identical to the section of the Mitchell Alternative that would be visible from KOP 7. Thus, the proposed transmission line would appear identical from KOP 7 regardless of the potential implementation

of this alternative or the Mitchell Alternative. Because the proposed transmission line would appear identical, the visual simulation prepared for KOP 7 is applicable to this alternative and the Mitchell Alternative. The visual contrasts and effects that the Peavine/Poeville Alternative would have on the characteristic landscape of KOP 7 are the same as those that would result from the Mitchell Alternative. These contrasts and effects are described in **Section 3.3.1.1**.

KOPs 15-17 (Truckee River Bridge and Verdi Parking Lot – West and East)

The section of the Peavine/Poeville Alternative that would be visible from KOPs 15, 16, and 17 is identical to the section of the Poeville Alternative that would be visible from these KOPs. Thus, the proposed transmission line would appear identical from KOPs 15-17 regardless of the potential implementation of this alternative or the Poeville Alternative. Because the proposed transmission line would appear identical, the visual simulations prepared for these KOPs are applicable to this alternative and the Poeville Alternative. The visual contrasts and effects that the Peavine/Poeville Alternative would have on the characteristic landscape of KOPs 15-17 are the same as those that would result from the Poeville Alternative. These contrasts and effects are described in **Section 3.3.3.1**.

3.3.4.2 Consistency with Federal Visual Resource Management Areas

The VQOs that have been designated for the NFS land that would be crossed by the Peavine/Poeville Alternative include Maximum Modification, Modification, and Retention (**Figure 5-A**). The BLM-administered public lands that would be crossed by the Peavine/Poeville Alternative are designated as VRM Class III. The proposed improvements at the Bordertown Substation would also occur on BLM-administered public lands that are designated as VRM Class III.

The areas designated as Maximum Modification and Retention VQO that would be crossed by this alternative are the same areas that also would be crossed by the Mitchell and Peavine Alternatives. The area designated as Modification that would be crossed by the Peavine/Poeville Alternative would also be crossed by the Peavine Alternative. The proposed transmission line would appear identical in these area regardless of the potential implementation of this alternative or the Mitchell and Peavine Alternatives. Thus, the consistency with the goals and objectives these VQOs that is described for the Mitchell and Peavine Alternatives in **Section 3.3.1.2** and **3.3.2.2**, respectively, also applies to the Peavine/Poeville Alternative. Accordingly, the Peavine/Poeville Alternative would be consistent with the goals and objectives of the Maximum Modification, Modification, and Retention VQOs.

The BLM VRM Class III area that would be crossed by the Peavine/Poeville Alternative is the same area that would be crossed by the Mitchell Alternative. The proposed transmission line would appear identical within the BLM VRM Class III area regardless of the potential

implementation of this alternative or the Mitchell Alternative. Improvements to the existing Bordertown Substation would also appear identical under either alternative. As described in **Section 3.3.1.2**, the Mitchell Alternative would be consistent with VRM Class III objectives. Thus, the Peavine/Poeville Alternative would also be consistent with VRM Class III objectives.

3.3.4.3 Consistency with Land and Resource Management Plans

The Peavine/Poeville Alternative is consistent and compliant with the Forest Plan (USFS 1986) and the BLM PRMP (2007) and ROD (2008). Implementation of the Peavine/Poeville Alternative would not require an amendment of either of the aforementioned plans or ROD.

3.3.5 No Action Alternative

3.3.5.1 Visual Quality and Scenic Attribute Effects

Construction

Implementation of the No Action Alternative would mean that the proposed project would not be constructed. The effect-inducing construction activities listed in **Section 3.2** would not occur. Thus, any potential effects on visual resources specifically associated with the construction and repair of the proposed project would not occur. For example, project materials and supplies would not be stored within the study area under this alternative because they would not be necessary. Any visual contrast that may have existed between the materials and supplies and the features of the surrounding characteristic landscape where they would have been stored would not occur.

Operation and Maintenance

Operation and maintenance of the proposed project would not occur under implementation of the No Action Alternative. Thus, the effect-inducing activities associated with operation and maintenance of the proposed project listed in **Section 3.2** would not occur. The potential effects that would have resulted from these activities or any others specifically associated with proposed project would not occur.

In the short-term, relatively near future, the existing conditions of the visual resources and characteristic landscapes within the study area would continue to appear as they are generally described in **Section 2.5**, and as shown on the existing conditions photographs in **Appendix A**. Environmental conditions in the study area would continue to naturally change over time. Therefore, under the No Action Alternative the existing conditions of the visual resources and characteristic landscape within the study area would not persist unchanged through the long-term future. Additionally, unforeseeable events or actions in the short-term and long-term future, such as wildfires, may alter the characteristic landscape and condition of the visual resources within the study area. Any unforeseeable events or actions that may alter the characteristic landscape would not be consequential to implementation of the No Action Alternative.

3.3.5.2 Consistency with Federal Visual Resource Management Areas

Implementation of the No Action Alternative would mean that the proposed project would not be constructed. The effect-inducing construction activities listed in **Section 3.2** would not occur. Thus, any potential effects on visual resources specifically associated with the construction and repair of the proposed project would not occur. There is not any NFS land or BLM-administered public lands that would be crossed by, or affected by implementation of the No Action Alternative. Accordingly, the No Action Alternative would not conflict with the goals or objectives of any VQOs and VRM Classes.

3.3.5.3 Consistency with Land and Resource Management Plans

Regardless of the potential implementation of the No Action Alternative, the USFS would continue to manage the NFS land within the study area into the foreseeable future in accordance with the Forest Plan (USFS 1986). The BLM-administered public lands within the study area would continue to be managed in accordance with the PRMP (BLM 2007) and ROD (BLM 2008) by the BLM Eagle Lake Field Office. As such, the existing characteristic landscape within most of the study area would remain protected under the guidance and objectives set forth in the aforementioned plans and ROD. However, management activities have the possibility of altering the existing characteristic landscape and thus impacting visual resources. Management activities are independent of any of the alternatives considered for detailed analysis in this Specialist Report, and would occur regardless of whether the No Action Alternative were implemented.

3.4 SUMMARY OF DIRECT AND INDIRECT EFFECTS BY ALTERNATIVE

Table 14 summarizes the effects for visual resources discussed above for each Alternative.

Table 14 Summary of Effects by Alternative and Indicator

Alternative	Effects		
	Loss of Visual Quality or Scenic Attributes of Characteristic Landscape	**Consistent with USFS VQOs and BLM VRM Classes**	**Consistent with Forest Plan and BLM PRMP/ROD**
Mitchell Alternative	Short-term negligible effects during construction; long-term negligible to minor effects during operation	Consistent; no effects	Consistent; no effects
Peavine Alternative	Short-term negligible effects during construction; long-term negligible to minor effects during operation	Consistent; no effects	Consistent; no effects
Poeville Alternative	Short-term negligible effects during construction and long-term negligible to minor effects during operation at all KOPs except KOP 10; effects at KOP 10 would be moderate	Consistent; no effects	Consistent; no effects
Peavine/Poeville Alternative	Short-term negligible effects during construction; long-term negligible to minor effects during operation	Consistent; no effects	Consistent; no effects

Alternative	Effects		
	Loss of Visual Quality or Scenic Attributes of Characteristic Landscape	**Consistent with USFS VQOs and BLM VRM Classes**	**Consistent with Forest Plan and BLM PRMP/ROD**
No Action Alternative	No effects	Consistent; no effects	Consistent; no effects

3.5 CUMULATIVE EFFECTS

Cumulative effects are defined at 40 CFR 1508.7 as:

> *"The impact which results from the incremental impact of the action, decision, or project when added to the other past, present, and reasonably foreseeable future actions, regardless of what agency (Federal or non-Federal) or person undertakes such actions. Cumulative impacts can result from individually minor but collectively significant actions taking place over a period of time".*

In accordance with the definition above, this section addresses the potential cumulative effects that would result from the implementation of the No Action Alternative and action alternatives when added to the effects of other past, present, and reasonably foreseeable future actions.

3.5.1 Cumulative Effects Study Area

The cumulative impacts analysis area (CIAA) includes the area within two miles of the centerline of each action alternative alignment as shown on **Figure 10**. This area was selected as the CIAA because it contains all of the visual evidence of past, present, and reasonably foreseeable future actions that the proposed project would typically be viewed in conjunction with concurrently. For purposes of the cumulative effects analysis in this Specialist Report, past actions are considered present actions because these actions have occurred and their effects contribute to the current conditions within the CIAA.

3.5.2 Present and Reasonably Foreseeable Future Actions

Visual character is described as the elements of form, line, color, and texture of a landscape feature, combined with that landscape features characteristics of dominance, scale, diversity, and continuity within the landscape (USFS 1974). Both natural and artificial landscape features comprise the visual character of a landscape. The perception of visual character is based on the percentage of the landscape comprised of artificial landscape features relative to natural landscape features, and their dominance, scale, diversity, and continuity relative to one another.

Accordingly, the existing conditions of the visual resources within the CIAA are the combination of the naturally occurring landscape features within its boundary and the artificial landscape features that have been introduced as a result of present actions. The present actions that have

largely been responsible for the contribution of most artificial landscape features, and thus have been considered in the cumulative effects analysis, include:

- Transmission line and other utility corridors;
- Paved and unpaved transportation networks; and
- Urban development and construction.

Major overhead transmission lines that contribute landscape features and alterations of natural landscape features to the CIAA consist of the Alturas 345 kV transmission line and numerous 120 kV transmission lines, including the #101, #102, #106, #114, #141, and #632 (inactive) transmission lines. There are many smaller distribution lines within the CIAA that would be crossed or occur within proximity to the action alternatives. Telephone and communications lines are often attached to the same pole structures used for existing power lines within the CIAA, but separate pole structures are utilized at scattered locations.

Utility corridors containing buried gas, water, and sewer pipelines have altered natural landscape features from the removal of forest cover and other vegetation within the corridor area. Buried water and sewer pipelines are mostly concentrated in areas where residential and commercial properties occur. Known buried gas pipelines within the CIAA include the pipeline located next to and roughly parallel with the #102 overhead transmission line next to Henness Pass/Dog Valley Road in Verdi.

The transportation network consists of the paved and unpaved roads and routes that cross or occur within the CIAA and are travelled by motorists. Interstate 80 and U.S. Highway 395 are the major paved roads within the CIAA. There are numerous minor arterial and collector roads that are either city-, county-, or state-maintained; and other minor roads that are privately maintained or not maintained. Most of the roads that cross NFS land and BLM-administered public lands within the CIAA are unpaved. The roads and routes within the CIAA that cross NFS land and are legal for motorized use appear on the Motor Vehicle Use Map for the Carson and Bridgeport Ranger Districts (USFS 2011).

Urban development within the CIAA has occurred primarily on private land and has generally been concentrated in areas within proximity to Interstate 80 and U.S. Highway 395. Residential development within the Interstate 80 and U.S. Highway 395 corridors include suburban communities as well as scattered residences in more rural settings. The largest suburban communities within the Interstate 80 corridor include Verdi and Somersett. The communities of Bordertown and Silver Lake are among the larger suburban communities within the U.S. Highway 395 corridor (**Figure 4**). Other structures, such as schools, libraries, or communities centers are located within the suburban communities and the CIAA, including the Verdi

Elementary School and Verdi Public Library. Larger commercial developments within the Interstate 80 corridor include the Gold Ranch Casino, Taco Bell and Indian Smoke Shop, Cabela's retail store, Chevron and Boomtown Casino (**Figure 4**). Some of larger commercial and industrial developments along the U.S. Highway 395 corridor include the Bordertown Casino and RV Resort, Shell Gasoline Station, EZ-Storage and A-1 Storage, and J.C. Penny Distribution Center.

There are no known reasonably foreseeable future actions that would be anticipated to have effects on the visual resources within the CIAA. However, use of the existing utilities, transportation network, and urban development would continue; thus, the presence of the artificial landscape features that have resulted from these present actions would persist into the reasonably foreseeable future.

3.5.3 Cumulative Effects by Alternative

3.5.3.1 Action Alternatives

The construction and subsequent operation of existing utility lines and pipelines have increased the number of artificial landscape features within the CIAA. Power pole structures and overhead conductors have increased added form, line, color, and texture elements that contrast with the elements associated with natural landscape features. Natural landscape features consisting mostly of vegetation have been reduced by removal of forest cover from within the corridor area surrounding each utility line and pipeline. The visual character of the CIAA has been altered by the relative changes to artificial and natural landscape features that have resulted from utilities and utility corridors. The construction of the roads and trails comprising the transportation network have also increased the number of artificial landscape features within the CIAA and required vegetation to be permanently removed from the road or trail surface. Roadways contribute form elements that are generally rectangular- or block-shaped. Existing roads and trails enable both motorized and non-motorized vehicles to gain access to areas within the CIAA that they would have otherwise not been able to. When vehicles travel on these roads, they are artificial landscape features that are temporarily added to the CIAA.

Urban development has altered the visual character of the CIAA by replacing natural landscape features with residential and commercial structures, parking lots, and other related artificial landscape features. Cumulatively, present development actions have resulted in the CIAA having a semi-suburban visual character, especially near the boundary of the CIAA. Existing structures, such as residences, warehouses, or retail stores contribute form, line, color, and texture elements to the characteristic landscapes within the CIAA that are similar to those that would be introduced by the proposed project. The vehicles parked outside of or near structures also contribute form, line, color, and texture elements that would be similar to those introduced by

project equipment during construction. Street lamps along suburban streets or within parking areas at commercial and industrial developments contribute similar form and line elements.

The proposed project would contribute additional artificial landscape features to the CIAA in the form of new pole structures and overhead conductors. Removal of forest cover and other vegetation from the ROW area for the proposed transmission line would reduce natural landscape features. Because the proposed project would affect the relationship between artificial and natural landscape features, implementation of any action alternative would potentially alter the visual character of the CIAA. The alteration would be expected to be minimal; however, because the proposed project would repeat form, line, color, and texture elements that are common throughout the CIAA and would generally have a minor to negligible degree of contrast with the landscape. Additional urban development, utility lines, and roads are not reasonably foreseeable future additions to the CIAA. The minimal landscape features that would be added or altered by the proposed project under any action alternative would be expected to have negligible cumulative impacts.

3.5.3.2 No Action Alternative

The No Action Alternative would not be expected to have any effects on visual resources (**Section 3.3.5**). As stated in **Section 3.5**, cumulative effects are the effect which results from the incremental effect of the action, decision, or project when added to the other present and reasonably foreseeable future actions. Because the No Action Alternative would not have any effects on visual resources, there would be no effect to add to the other present and reasonably foreseeable future actions. Thus, the No Action Alternative would not be anticipated to have any cumulative effects on visual resources.

4.0 COMPLIANCE WITH OTHER LAWS AND REGULATIONS

4.1 FEDERAL LAWS AND REGULATIONS

When NEPA was passed by the United States Congress in 1969, several national goals for environmental policy were established. One of these goals is to ensure that all Americans have healthy, productive, and aesthetically pleasing surroundings. This Specialist Report has been prepared to analyze and disclose the potential effects that the proposed project may have on visual resources, and consequentially, whether the aesthetics of the area surrounding it would become unpleasing. The findings in this document will be incorporated into an EIS for the proposed project which will be prepared pursuant to NEPA. The EIS process will ensure that compliance with NEPA is achieved.

Per Chapter 2380 of the USFS Manual, it is the policy of the USFS to: 1) inventory, evaluate, manage, and, where necessary, restore scenery as a fully integrated part of the ecosystems of NFS land and of the land and resource management and planning process; 2) employ a systematic, interdisciplinary approach to scenery management to ensure the integrated use of the natural and social sciences and environmental design; 3) ensure scenery is treated equally with other resources; and, 4) apply scenery management principles routinely in all NFS activities. The analysis of potential impacts in this Specialist Report was performed using the USFS VMS and BLM VRM systems, both of which are systematic approaches to the management of scenic resources. The analysis and findings in this document will be incorporated into an EIS for the proposed project; thus, visual resources will be considered equally with other resources in the EIS.

The Federal Land Policy and Management Act (FLPMA) of 1976 established the BLM as the jurisdictional agency for expanses of public land in the West to be managed for multiple uses. Per the FLPMA, the BLM-administered public lands should be managed in a manner that will protect the quality of scenic values, and any ROW granted by the BLM shall contain terms and conditions which will minimize damage to scenic values.

4.2 STATE AND LOCAL LAWS AND REGULATIONS

The *Interstate 80 Landscape and Aesthetics Corridor Plan* (Nevada Department of Transportation 2005) states that the scenic quality of the interstate corridor between Mogul, Nevada and the California state line should be preserved. Scenic views of the Carson Range and the Truckee River should be preserved.

The *Regional Utility Corridor Report,* as amended, (Regional Utility Corridor Citizens Advisory Committee 1999), which is adopted by reference into the Truckee Meadows Regional Plan, requires applications submitted to local permitting agencies for the development of new

transmission lines in existing corridors be sufficient in demonstrating the maximum use of the established corridor. This demonstration shall establish that a full disclosure of potential health and safety, environmental, land use, visual, and aesthetic impacts during the construction and operation of the project has been or will be made.

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FIGURES

Bordertown Substation
Alturas Line
Silver Lake Substation
#141 Line
Peavine Peak
Poeville
CALIFORNIA
NEVADA
Summit One
#102 Line
Beacon Point
#101 Line
California Substation
Verdi
#106 Line
Somersett Community
#114 Line (Underground)
#114 Line
Northwest Substation
Reno
#142 Line
Mogul
Washoe Substation
North Valley Road Substation
#114 Line
#142 Line
Truckee River
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Legend

Transmission Line Alternatives
- Mitchell
- Peavine
- Poeville
- Peavine/Poeville

Existing Features
- 120 kV Transmission Line
- Underground 120 kV Transmission Line
- 345 kV Transmission Line
- Substation
- USFS Roads
- USFS Trails

Land Ownership
- U.S. FOREST SERVICE
- PRIVATE LAND
- CALIFORNIA DEPT. OF FISH AND WILDLIFE
- U.S. BUREAU OF LAND MANAGEMENT
- U.S. DEPT. OF DEFENSE
- U.S. BUREAU OF RECLAMATION

Note: Segments of Transmission Line Alternatives that appear parallel share the same alignment. Transmission lines are offset for visual purposes only.

N

1" = 6,000 feet

0 3,000 6,000 12,000 Feet

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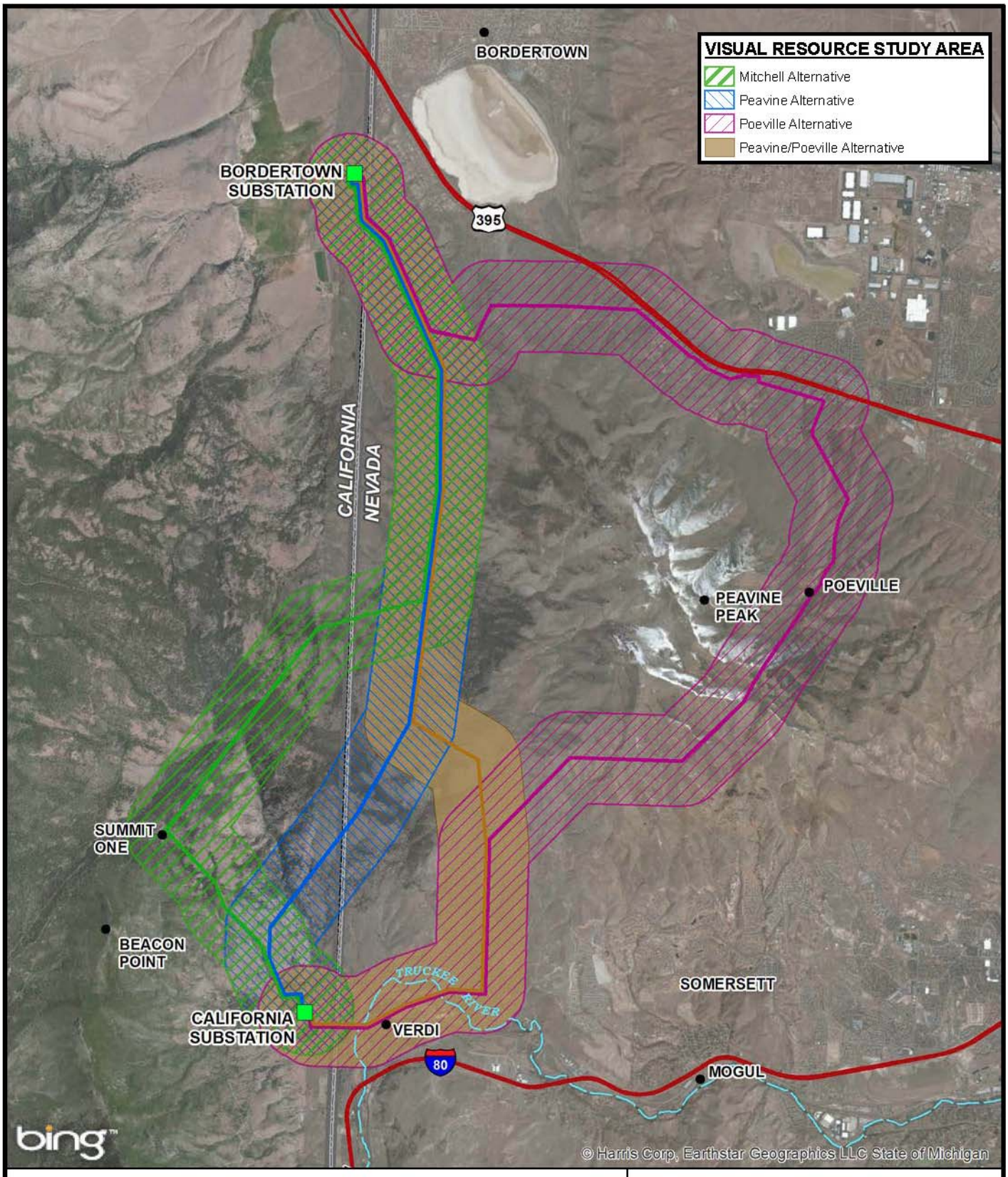
SPECIALIST REPORT

BORDERTOWN TO CALIFORNIA
120 KV TRANSMISSION LINE PROJECT

FIGURE 1
OVERVIEW OF
ACTION ALTERNATIVES CONSIDERED



MITCHELL ALTERNATIVE
PEAVINE ALTERNATIVE
POEVILLE ALTERNATIVE
PEAVINE/POEVILLE ALTERNATIVE
EXISTING SUBSTATION

N

1 " = 8,000 feet

8,000 0 8,000 Feet

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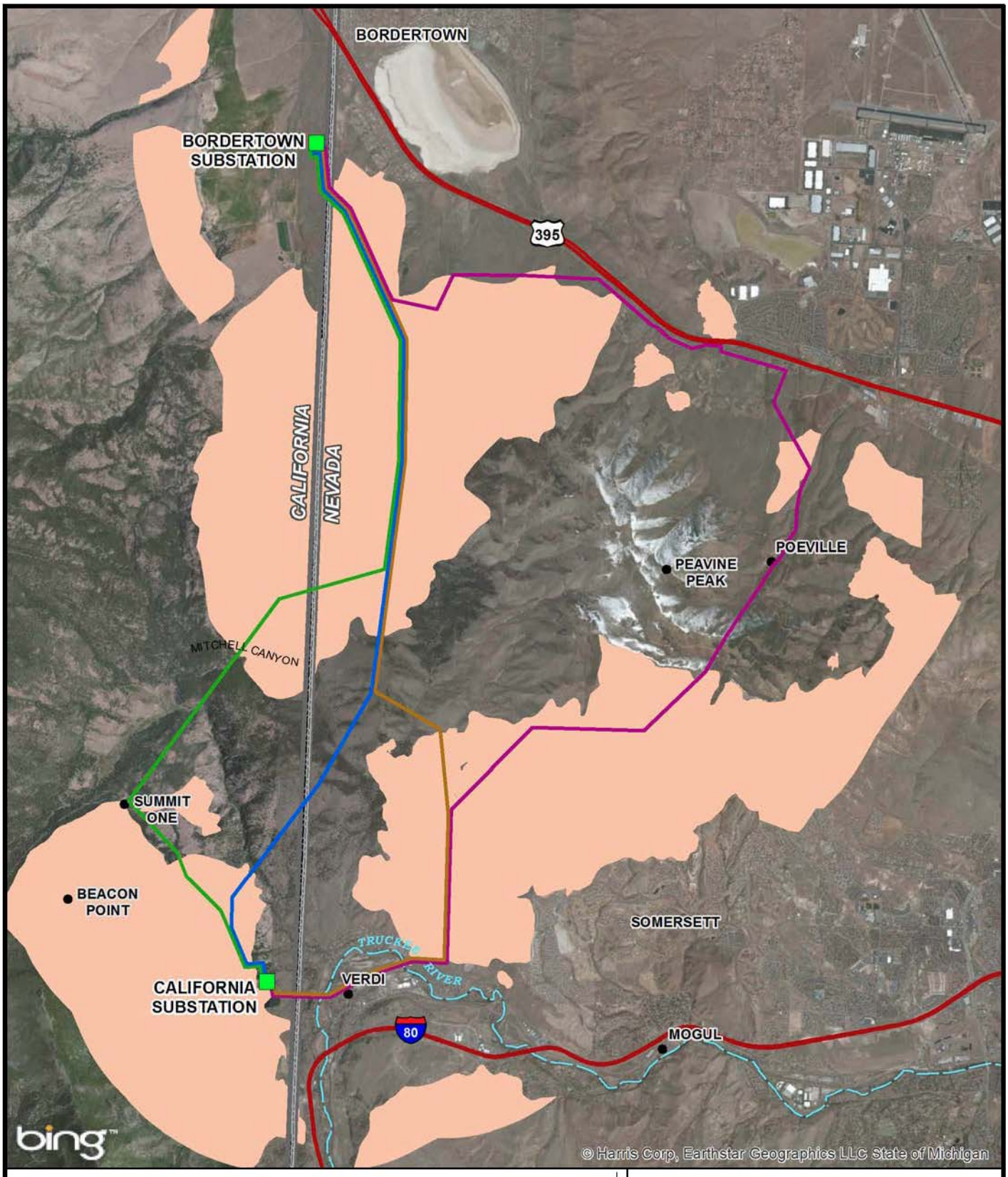
SPECIALIST REPORT
VISUAL RESOURCES

BORDERTOWN TO CALIFORNIA
120 KV TRANSMISSION LINE PROJECT

FIGURE 2
VISUAL RESOURCES STUDY AREA



MITCHELL ALTERNATIVE
PEAVINE ALTERNATIVE
POEVILLE ALTERNATIVE
PEAVINE/POEVILLE ALTERNATIVE
WILDFIRE BURN AREA
EXISTING SUBSTATION

NOTE: BURN AREAS FROM WILDFIRES OCCURRING EARLIER THAN 1980 ARE NOT SHOWN ON MAP.

N

1 " = 8,000 feet

0 4,000 8,000 16,000 Feet

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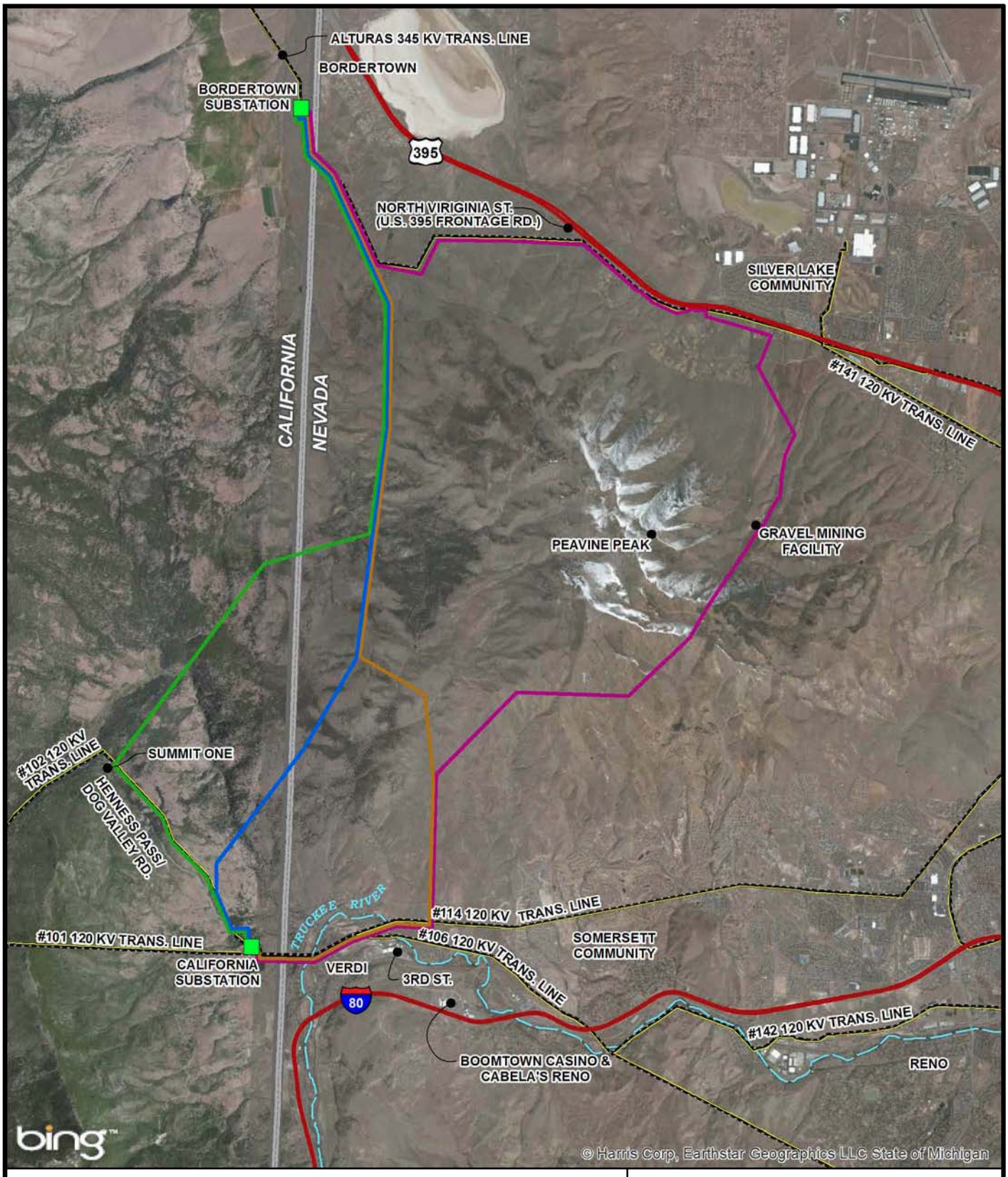
SPECIALIST REPORT VISUAL RESOURCES

BORDERTOWN TO CALIFORNIA
120 KV TRANSMISSION LINE PROJECT

FIGURE 3
PAST WILDFIRE BURN AREAS



MITCHELL ALTERNATIVE
PEAVINE ALTERNATIVE
POEVILLE ALTERNATIVE
PEAVINE/POEVILLE ALTERNATIVE
EXISTING SUBSTATION
EXISTING TRANSMISSION LINE

N

1 in = 8,000 feet

0 4,000 8,000 16,000 FEET

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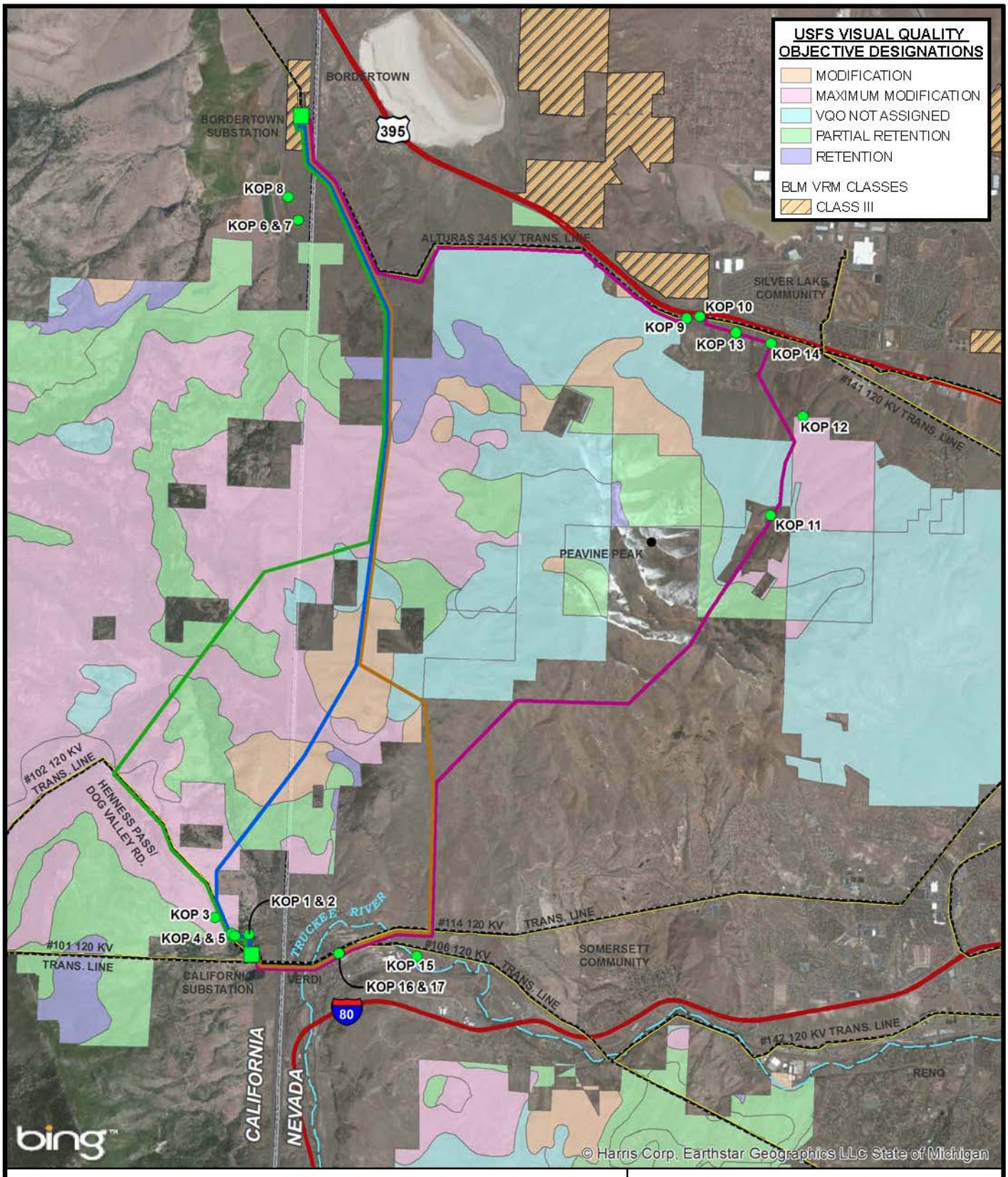
SPECIALIST REPORT VISUAL RESOURCES

BORDERTOWN TO CALIFORNIA 120 KV TRANSMISSION LINE PROJECT

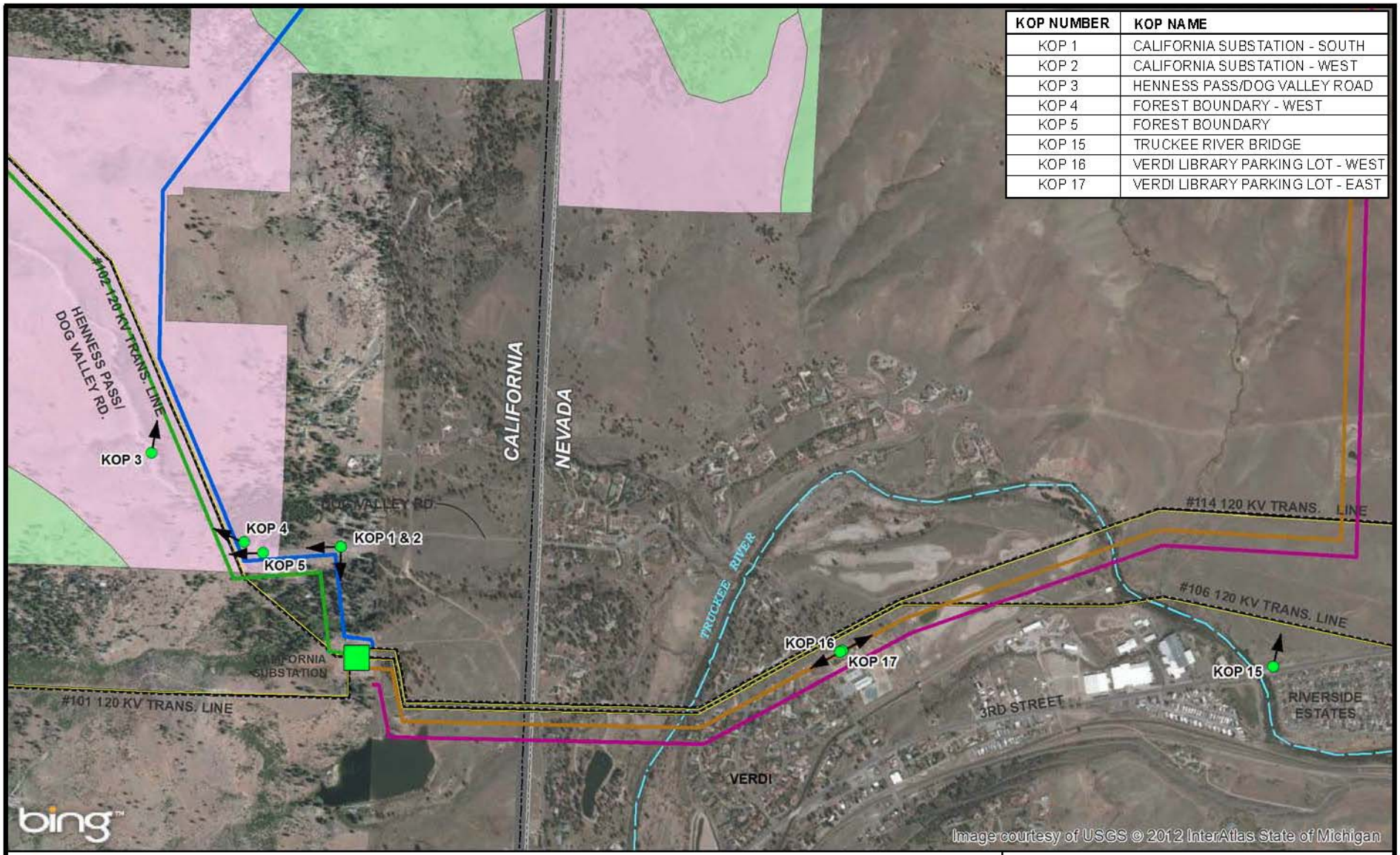
FIGURE 4
EXISTING DEVELOPMENT



SPECIALIST REPORT
VISUAL RESOURCES

BORDERTOWN TO CALIFORNIA
120 KV TRANSMISSION LINE PROJECT

FIGURE 5-A
MAP OF KOP LOCATIONS



KOP LOCATION AND DIRECTION OF VIEW
MITCHELL ALTERNATIVE
PEAVINE ALTERNATIVE
POEVILLE ALTERNATIVE
PEAVINE/POEVILLE ALTERNATIVE
EXISTING SUBSTATION
EXISTING TRANSMISSION LINE

USFS VISUAL QUALITY OBJECTIVE DESIGNATIONS
MAXIMUM MODIFICATION
PARTIAL RETENTION

BLM VRM CLASSES
CLASS III

NOTE: COINCIDING SEGMENTS OF ACTION ALTERNATIVES SHOWN ADJACENT TO ONE ANOTHER FOR ILLUSTRATIVE PURPOSES ONLY; THESE SEGMENTS WOULD ACTUALLY BE CONSTRUCTED ALONG THE SAME CENTERLINE.

N

1 " = 1,500 FEET

0 750 1,500 3,000 FEET

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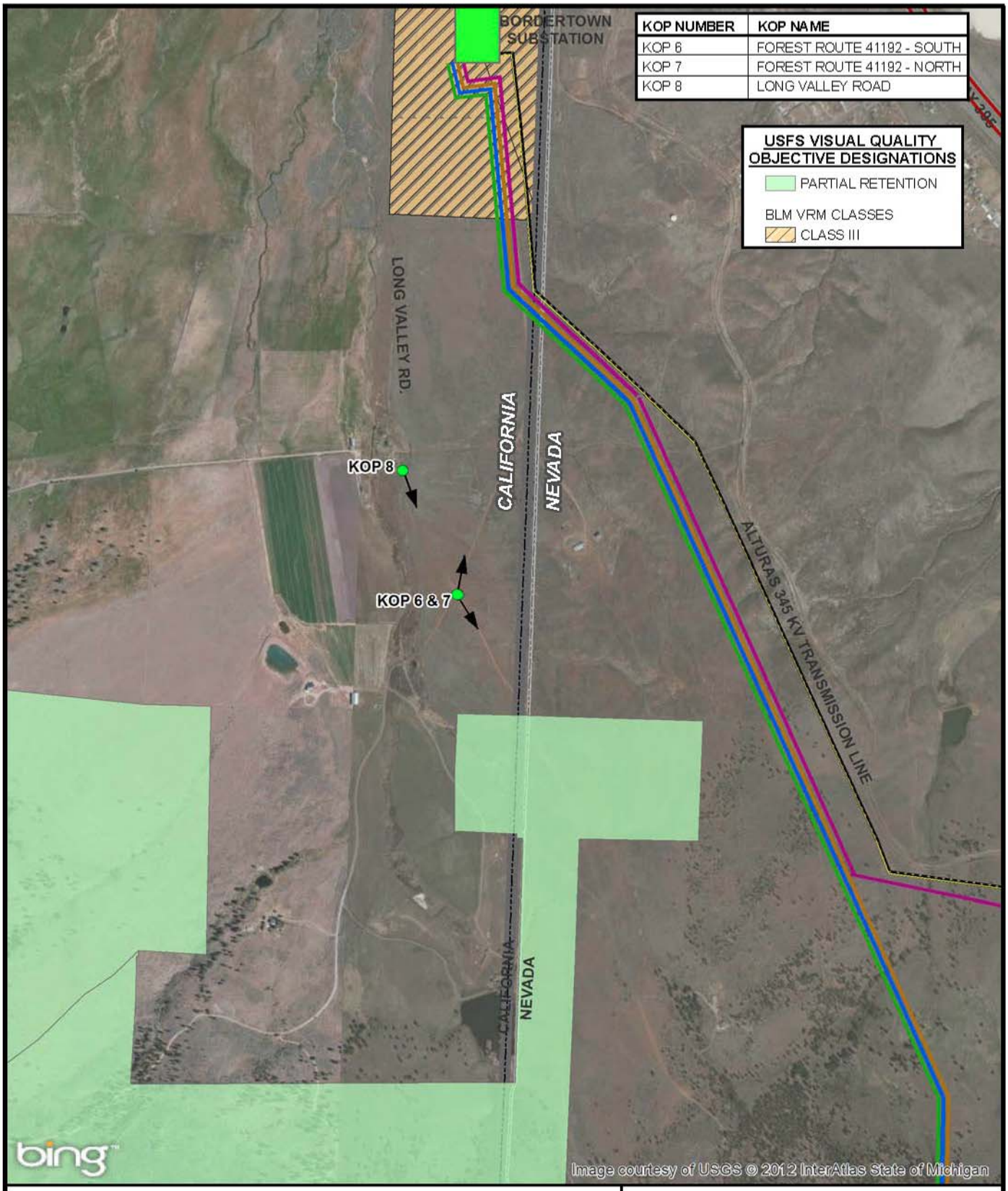
SPECIALIST REPORT VISUAL RESOURCES

BORDERTOWN TO CALIFORNIA
120 KV TRANSMISSION LINE PROJECT

FIGURE 5-B
MAP OF KOP LOCATIONS
VERDI AREA DETAIL



KOP LOCATION AND DIRECTION OF VIEW
MITCHELL ALTERNATIVE
PEAVINE ALTERNATIVE
POEVILLE ALTERNATIVE
PEAVINE/POEVILLE ALTERNATIVE
EXISTING SUBSTATION
EXISTING TRANSMISSION LINE

NOTE: COINCIDING SEGMENTS OF ACTION ALTERNATIVES SHOWN ADJACENT TO ONE ANOTHER FOR ILLUSTRATIVE PURPOSES ONLY; THESE SEGMENTS WOULD ACTUALLY BE CONSTRUCTED ALONG THE SAME CENTERLINE.

N

1 " = 1,500 feet

0 750 1,500 3,000 Feet

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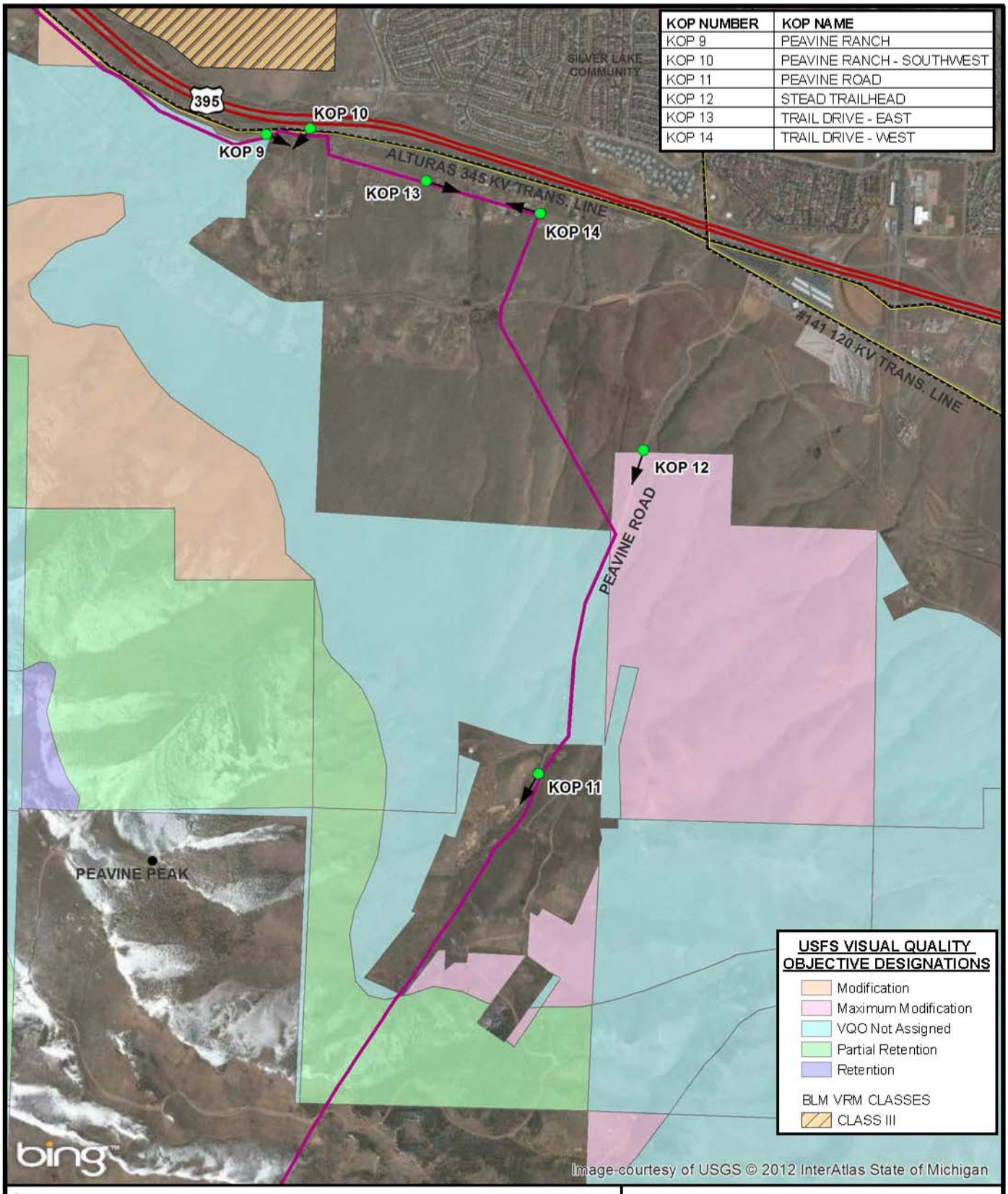
SPECIALIST REPORT VISUAL RESOURCES

BORDERTOWN TO CALIFORNIA
120 KV TRANSMISSION LINE PROJECT

FIGURE 5-C
MAP OF KOP LOCATIONS
BORDER TOWN AREA DETAIL



SPECIALIST REPORT
VISUAL RESOURCES

BORDERTOWN TO CALIFORNIA
120 KV TRANSMISSION LINE PROJECT

FIGURE 5-D
MAP OF KOP LOCATIONS
PEAVINE ROAD AREA DETAIL

BORDERTOWN SUBSTATION
ALTURAS LINE
SILVER LAKE SUBSTATION
395
#141 LINE
PEAVINE PEAK
POEVILLE
SUMMIT ONE
#102 LINE
CALIFORNIA
NEVADA
BEACON POINT
NORTHWEST SUBSTATION
NORTH VALLEY ROAD SUBSTATION
#114 LINE
#142 LINE
651
SOMERSETT COMMUNITY
#114 LINE (UNDERGROUND)
RENO
Truckee River
#101 LINE
CALIFORNIA SUBSTATION
VERDI
#106 LINE
MOGUL
80
WASHOE SUBSTATION

LEGEND

- SUBSTATION

USFS ROADS AND TRAILS

- ROAD-ALL VEHICLES
- ROAD-ALL VEHICLES, SEASONAL
- ROAD-HIGHWAY LEGAL
- TRAIL-ALL VEHICLES
- TRAIL-ATV
- TRAIL-MOTORCYCLE
- OTHER ROADS

EXISTING FEATURES

- 120 KV TRANSMISSION LINE
- UNDERGROUND 120 KV TRANSMISSION LINE
- 345 KV TRANSMISSION LINE

VIEWSHED ANALYSIS

 # OF STRUCTURES POTENTIALLY VISIBLE

- 0
- 1 - 10
- 11 - 20
- 21 - 40
- 41 - 60
- 61 - 80
- 81 - 94
- ESTIMATED POLE LOCATIONS

NOTE: THIS ANALYSIS DOES NOT TAKE INTO ACCOUNT EXISTING TREES, BUILDINGS, OR OTHER FEATURES THAT COULD POTENTIALLY BLOCK THE VISIBILITY OF STRUCTURES.

N

1" = 6,000 feet

0 3,000 6,000 12,000 Feet

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SPECIALIST REPORT VISUAL RESOURCES

BORDERTOWN TO CALIFORNIA
120 KV TRANSMISSION LINE PROJECT

FIGURE 6
MITCHELL ALTERNATIVE
VIEWSHED ANALYSIS

BORDERTOWN SUBSTATION
ALTURAS LINE
SILVER LAKE SUBSTATION
#141 LINE
#114 LINE
NORTH VALLEY ROAD SUBSTATION
#142 LINE
NORTHWEST SUBSTATION
#114 Line
#114 LINE (UNDERGROUND)
SUMMIT ONE
#102 LINE
BEACON POINT
#101 LINE
CALIFORNIA SUBSTATION
#106 LINE
WASHOE SUBSTATION
#142 LINE
CALIFORNIA
NEVADA
PEAVINE PEAK
POEVILLE
SOMERSETT COMMUNITY
VERDI
MOGUL
RENO
Truckee River
395
651
80

LEGEND

- SUBSTATION

USFS ROADS AND TRAILS

- ROAD-ALL VEHICLES
- ROAD-ALL VEHICLES, SEASONAL
- ROAD-HIGHWAY LEGAL
- TRAIL-ALL VEHICLES
- TRAIL-ATV
- TRAIL-MOTORCYCLE
- OTHER ROADS

EXISTING FEATURES

- 120 KV TRANSMISSION LINE
- UNDERGROUND 120 KV TRANSMISSION LINE
- 345 KV TRANSMISSION LINE

VIEWSHED ANALYSIS

 # OF STRUCTURES POTENTIALLY VISIBLE

- 0
- 1 - 10
- 11 - 20
- 21 - 40
- 41 - 60
- 61 - 80
- 81 - 90
- ESTIMATED POLE LOCATIONS

NOTE: THIS ANALYSIS DOES NOT TAKE INTO ACCOUNT EXISTING TREES, BUILDINGS, OR OTHER FEATURES THAT COULD POTENTIALLY BLOCK THE VISIBILITY OF STRUCTURES.

N

1" = 6,000 feet

0 3,000 6,000 12,000 Feet

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SPECIALIST REPORT VISUAL RESOURCES

BORDERTOWN TO CALIFORNIA
120 KV TRANSMISSION LINE PROJECT

FIGURE 7
PEAVINE ALTERNATIVE
VIEWSHED ANALYSIS

BORDERTOWN SUBSTATION
ALTURAS LINE
SILVER LAKE SUBSTATION
395
#141 LINE
PEAVINE PEAK
POEVILLE
#114 LINE
NORTH VALLEY ROAD SUBSTATION
#142 LINE
651
NORTHWEST SUBSTATION
SOMERSETT COMMUNITY
#114 LINE (UNDERGROUND)
RENO
SUMMIT ONE
#102 LINE
CALIFORNIA
NEVADA
BEACON POINT
Truckee River
#101 LINE
VERDI
#106 LINE
CALIFORNIA SUBSTATION
MOGUL
80
WASHOE SUBSTATION

LEGEND

- SUBSTATION

USFS ROADS AND TRAILS

- ROAD-ALL VEHICLES
- ROAD-ALL VEHICLES, SEASONAL
- ROAD-HIGHWAY LEGAL
- TRAIL-ALL VEHICLES
- TRAIL-ATV
- TRAIL-MOTORCYCLE
- OTHER ROADS

EXISTING FEATURES

- 120 KV TRANSMISSION LINE
- UNDERGROUND 120 KV TRANSMISSION LINE
- 345 KV TRANSMISSION LINE

VIEWSHED ANALYSIS

 # OF STRUCTURES POTENTIALLY VISIBLE

- 0
- 1 - 10
- 11 - 20
- 21 - 40
- 41 - 60
- 61 - 80
- 81 - 96
- ESTIMATED POLE LOCATIONS

NOTE: THIS ANALYSIS DOES NOT TAKE INTO ACCOUNT EXISTING TREES, BUILDINGS, OR OTHER FEATURES THAT COULD POTENTIALLY BLOCK THE VISIBILITY OF STRUCTURES.

N

1" = 6,000 feet

0 3,000 6,000 12,000 Feet

DATE DRAWN: 11/22/2013

SPECIALIST REPORT
VISUAL RESOURCES

BORDERTOWN TO CALIFORNIA
120 KV TRANSMISSION LINE PROJECT

FIGURE 8
POEVILLE ALTERNATIVE
VIEWSHED ANALYSIS

BORDERTOWN SUBSTATION
ALTURAS LINE
SILVER LAKE SUBSTATION
395
#141 LINE
PEAVINE PEAK
POEVILLE
SUMMIT ONE
#102 LINE
CALIFORNIA
NEVADA
BEACON POINT
SOMERSETT COMMUNITY
#114 LINE (UNDERGROUND)
#114 LINE
NORTH VALLEY ROAD SUBSTATION
#142 LINE
651
NORTHWEST SUBSTATION
RENO
Truckee River
#101 LINE
CALIFORNIA SUBSTATION
VERDI
#106 LINE
MOGUL
80
WASHOE SUBSTATION

LEGEND

- SUBSTATION

USFS ROADS AND TRAILS

- ROAD-ALL VEHICLES
- ROAD-ALL VEHICLES, SEASONAL
- ROAD-HIGHWAY LEGAL
- TRAIL-ALL VEHICLES
- TRAIL-ATV
- TRAIL-MOTORCYCLE
- OTHER ROADS

EXISTING FEATURES

- 120 KV TRANSMISSION LINE
- UNDERGROUND 120 KV TRANSMISSION LINE
- 345 KV TRANSMISSION LINE

VIEWSHED ANALYSIS

 # OF STRUCTURES POTENTIALLY VISIBLE

- 0
- 1 - 10
- 11 - 20
- 21 - 40
- 41 - 60
- 61 - 80
- 81 - 100
- 101 - 107
- ESTIMATED POLE LOCATIONS

NOTE: THIS ANALYSIS DOES NOT TAKE INTO ACCOUNT EXISTING TREES, BUILDINGS, OR OTHER FEATURES THAT COULD POTENTIALLY BLOCK THE VISIBILITY OF STRUCTURES.

N

1" = 6,000 feet

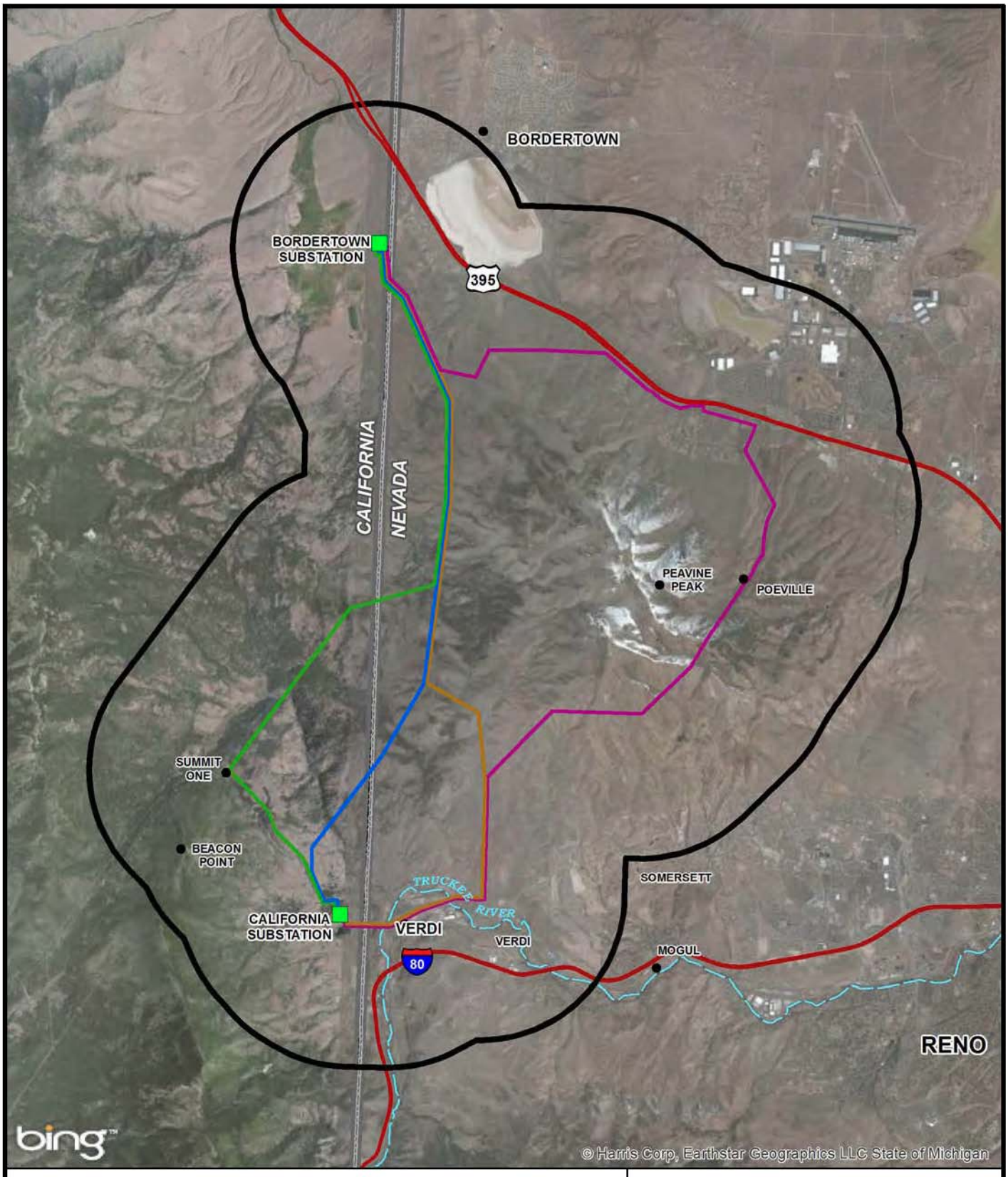
0 3,000 6,000 12,000 Feet

DATE DRAWN: 11/22/2013

SPECIALIST REPORT
VISUAL RESOURCES

BORDERTOWN TO CALIFORNIA
120 KV TRANSMISSION LINE PROJECT

FIGURE 9
PEAVINE/POEVILLE ALTERNATIVE
VIEWSHED ANALYSIS



CUMULATIVE IMPACTS ANALYSIS AREA
MITCHELL ALTERNATIVE
PEAVINE ALTERNATIVE
POEVILLE ALTERNATIVE
PEAVINE/POEVILLE ALTERNATIVE
EXISTING SUBSTATION

N

1 " = 10,000 feet

0 5,000 10,000 20,000 Feet

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SPECIALIST REPORT VISUAL RESOURCES

BORDERTOWN TO CALIFORNIA
120 KV TRANSMISSION LINE PROJECT

FIGURE 10
CUMULATIVE IMPACTS ANALYSIS AREA

APPENDIX A

KOP Existing Conditions Photographs and Visual Simulations

KOP 1 (California Substation – South)
Existing Conditions

KOP 1 (California Substation – South)
Visual Simulation

KOP 2 (California Substation – West)
Existing Conditions

KOP 2 (California Substation – West)
Visual Simulation

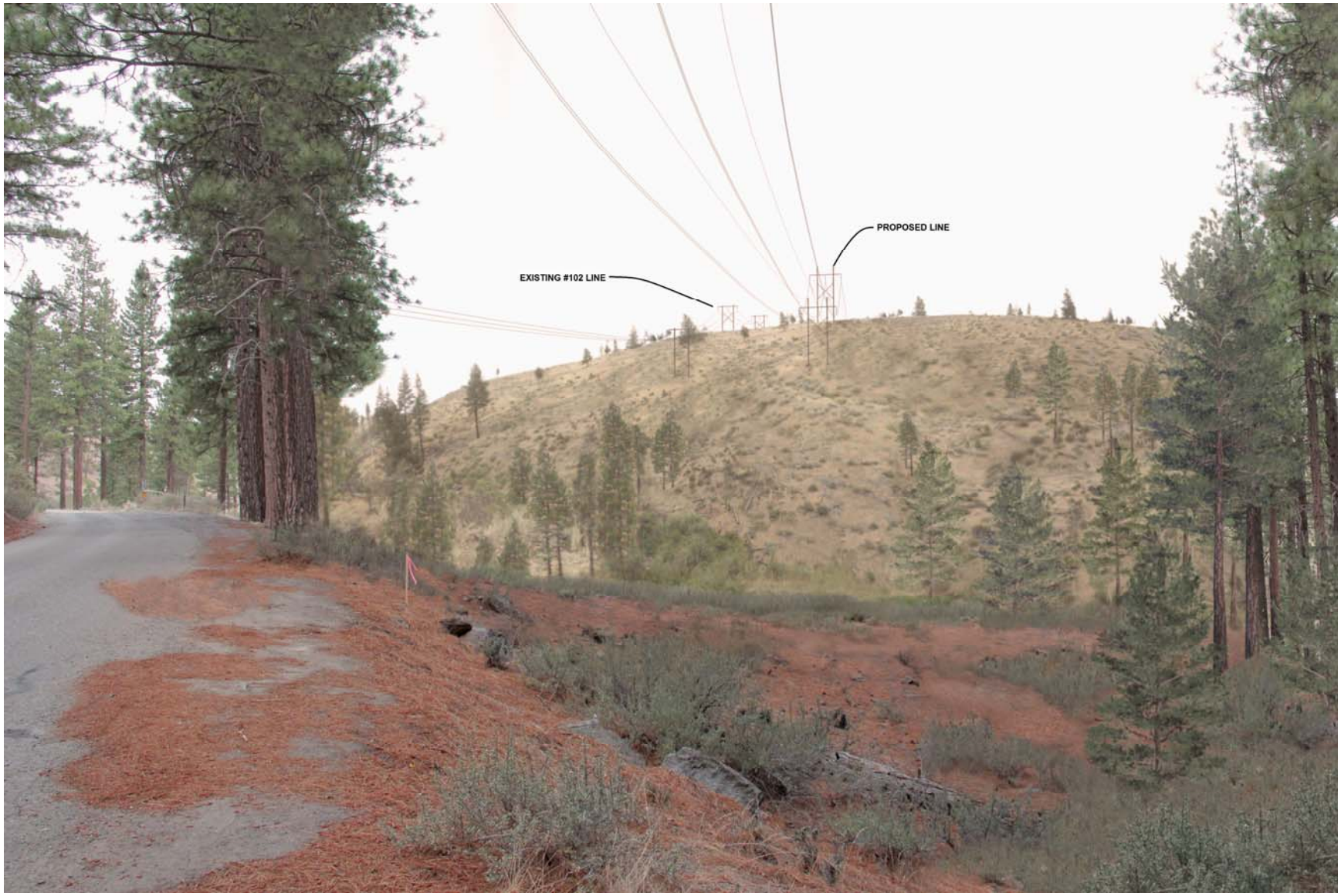
KOP 3 (Henness Pass/Dog Valley Road)
Existing Conditions

KOP 3 (Henness Pass/Dog Valley Road)
Visual Simulation – Mitchell Alternative

KOP 3 (Henness Pass/Dog Valley Road)
Visual Simulation – Peavine Alternative

KOP 4 (Forest Boundary - West)
Existing Conditions

KOP 4 (Forest Boundary - West)
Visual Simulation



KOP 5 (Forest Boundary)
Existing Conditions

KOP 5 (Forest Boundary)
Visual Simulation

KOP 7 (Forest Route 41192 – North)
Existing Conditions

KOP 7 (Forest Route 41192 – North)
Visual Simulation

KOP 9 (Peavine Ranch)
Existing Conditions

KOP 9 (Peavine Ranch)
Visual Simulation

KOP 10 (Peavine Ranch – Southwest)
Existing Conditions

KOP 10 (Peavine Ranch – Southwest)
Visual Simulation

KOP 11 (Peavine Road)
Existing Conditions

KOP 11 (Peavine Road)
Visual Simulation

KOP 12 (Stead Trailhead)
Existing Conditions

KOP 12 (Stead Trailhead)
Visual Simulation

KOP 13 (Trail Drive – East)
Existing Conditions

KOP 13 (Trail Drive – East)
Visual Simulation

KOP 14 (Trail Drive – West)
Existing Conditions

KOP 14 (Trail Drive – West)
Visual Simulation

KOP 15 (Truckee River Bridge)
Existing Conditions

KOP 15 (Truckee River Bridge)
Visual Simulation

KOP 16 (Verdi Library Parking Lot – West)
Existing Conditions

KOP 16 (Verdi Library Parking Lot – West)
Visual Simulation

KOP 17 (Verdi Library Parking Lot – East)
Existing Conditions

KOP 17 (Verdi Library Parking Lot – East)
Visual Simulation